

=> d his

(FILE 'HOME' ENTERED AT 06:29:17 ON 28 FEB 2000)

FILE 'REGISTRY' ENTERED AT 06:29:22 ON 28 FEB 2000

L1 STR  
L2 50 S L1  
L3 . STR  
L4 50 S L3  
L5 STR L3  
L6 50 S L5  
L7 155687 S (46.195.39/RID OR 333.446.88/RID OR 333.446.96/RID) AND  
NRS>2  
L8 37 S (333.446.96/RID) AND NRS>2  
L9 85727 S (46.195.39/RID OR 333.446.88/RID) AND NRS>3  
L10 85764 S L8 OR L9  
L11 20000 S L10 OR L10 RAN=(182937-89-9,)  
L12 20001 S L10 OR L10 RAN=(139290-83-8,182937-89-9)  
L13 20001 S L10 OR L10 RAN=(102386-27-6,139290-83-8)  
L14 20001 S L10 OR L10 RAN=(52546-67-5,102386-27-6)  
L15 5765 S L10 OR L10 RAN=(,52546-67-5)

FILE 'HCAPLUS' ENTERED AT 07:17:13 ON 28 FEB 2000

L16 51529 S COMBINATORIAL? OR LIBRAR?  
L17 3128 S L11  
L18 5249 S L12  
L19 6902 S L13  
L20 10835 S L14  
L21 38947 S L15  
L22 291 S L16 AND (L17-L21)  
L23 65 S L16(L) (L17-L21)

FILE 'REGISTRY' ENTERED AT 07:25:19 ON 28 FEB 2000

FILE 'HCAPLUS' ENTERED AT 07:25:25 ON 28 FEB 2000

SET SMARTSELECT ON  
SET SMARTSELECT OFF

FILE 'REGISTRY' ENTERED AT 07:25:39 ON 28 FEB 2000

FILE 'HCAPLUS' ENTERED AT 07:25:52 ON 28 FEB 2000

SET SMARTSELECT ON  
L24 SEL L16 1-30000 RN : 51161 TERMS  
SET SMARTSELECT OFF

FILE 'REGISTRY' ENTERED AT 07:31:38 ON 28 FEB 2000

L25 STR  
L26 STR  
L27 STR L26  
L28 50 S L25-L27  
L29 343876 S (46.195.39/RID OR 333.446/RID)  
L30 50 S L25-L27 SSS SAM SUB=L29  
L31 50 S L25-L27  
L32 SCR 1950  
L33 50 S L25-L27 AND L32  
L34 50 S L25-L27 NOT L32

Searched by John Dantzman 308-4488

L35 62942 S L25-L27 AND L32 FUL  
L36 87480 S L25-L27 NOT L32 FUL  
L37 150422 S L35 OR L36  
L38 45363 S L37 AND L10  
L39 20000 S L38 OR L38 RAN=(142950-49-0,)  
L40 20001 S L38 OR L38 RAN=(70285-53-9,142950-49-0)  
L41 5364 S L38 OR L38 RAN=(,70285-53-9)

FILE 'HCAPLUS' ENTERED AT 07:41:50 ON 28 FEB 2000

L42 18137 S L39-L41  
L43 188 S L42 AND L16  
L44 48 S L42(L)L16

FILE 'REGISTRY' ENTERED AT 07:44:00 ON 28 FEB 2000

L45 STR  
L46 0 S L45 SSS FUL SUB=L37

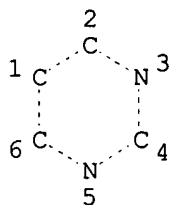
FILE 'BEILSTEIN' ENTERED AT 07:46:25 ON 28 FEB 2000

L47 0 S L25 AND L45 FUL

FILE 'HCAPLUS' ENTERED AT 07:52:01 ON 28 FEB 2000

=> d que 144

L8 37 SEA FILE=REGISTRY ABB=ON PLU=ON (333.446.96/RID) AND NRS>2  
L9 85727 SEA FILE=REGISTRY ABB=ON PLU=ON (46.195.39/RID OR  
333.446.88/  
RID) AND NRS>3  
L10 85764 SEA FILE=REGISTRY ABB=ON PLU=ON L8 OR L9  
L16 51529 SEA FILE=HCAPLUS ABB=ON PLU=ON COMBINATORIAL? OR LIBRAR?  
L25 STR



## NODE ATTRIBUTES:

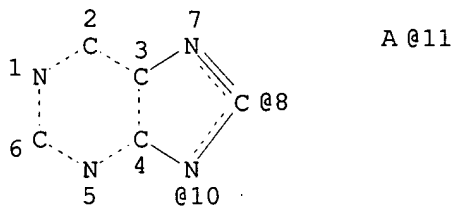
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DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RSPEC I  
NUMBER OF NODES IS 6

## STEREO ATTRIBUTES: NONE

L26 STR



VPA 11-8/10 U

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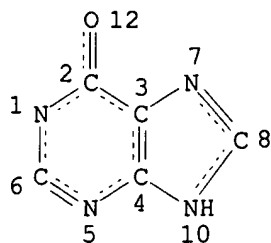
NSPEC IS RC AT 11  
CONNECT IS E3 RC AT 2  
CONNECT IS E3 RC AT 6  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 10

## STEREO ATTRIBUTES: NONE

L27 STR



## NODE ATTRIBUTES:

CONNECT IS E3 RC AT 6  
CONNECT IS E3 RC AT 8  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 10

## STEREO ATTRIBUTES: NONE

L32 SCR 1950  
L35 62942 SEA FILE=REGISTRY SSS FUL (L25 OR L26 OR L27) AND L32  
L36 87480 SEA FILE=REGISTRY SSS FUL (L25 OR L26 OR L27) NOT L32  
L37 150422 SEA FILE=REGISTRY ABB=ON PLU=ON L35 OR L36  
L38 45363 SEA FILE=REGISTRY ABB=ON PLU=ON L37 AND L10  
L39 20000 SEA FILE=REGISTRY RAN=(142950-49-0,) ABB=ON PLU=ON L38 OR  
L38  
L40 20001 SEA FILE=REGISTRY RAN=(70285-53-9,142950-49-0) ABB=ON PLU=ON  
L38 OR L38  
L41 5364 SEA FILE=REGISTRY RAN=(,70285-53-9) ABB=ON PLU=ON L38 OR  
L38  
L42 18137 SEA FILE=HCAPLUS ABB=ON PLU=ON (L39 OR L40 OR L41)  
L44 48 SEA FILE=HCAPLUS ABB=ON PLU=ON L42(L)L16

=> d bib abs hitstr 144

L44 ANSWER 1 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 2000:68479 HCAPLUS  
DN 132:122934  
TI Preparation of glycopeptide antibiotics and their combinatorial libraries  
IN Kahne, Daniel; Kerns, Robert; Fukuzawa, Seketsu; Ge, Min; Thompson, Christopher  
PA Princeton University, USA  
SO PCT Int. Appl., 159 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000004044	A1	20000127	WO 1999-US15845	19990714
	W:				
	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI US 1998-150690 19980714  
US 1999-134839 19990519

AB Glycopeptides A1-A2-A3-A4-A5-A6-A7 [A1 comprises a modified or unmodified .alpha.-amino acid residue, alkyl, aryl, aralkyl, alkanoyl, aroyl, aralkanoyl, heterocyclyl, heterocyclylcarbonyl, heterocyclylalkyl, heterocyclylalkylcarbonyl, alkylsulfonyl, arylsulfonyl, guanidinyl, carbamoyl, or xanthyl; each of A2 to A7 comprises a modified or

unmodified

.alpha.-amino acid residue, where (i) A1 is linked to an amino group on A2, (ii) each of A2, A4 and A6 bears an arom. side chain which is cross-linked by two or more covalent bonds, and (iii) A7 bears a terminal carboxyl, ester, amide, or N-substituted amide group; one or more of A1 to

A7 is linked via a glycosidic bond to one or more glycosidic groups each having one or more sugar residues, at least one of the sugar residues bearing one or more substituents of the formula YXR, N+R1:CR2R3, N:PR1R2R3, N+R1R2R3 or P+R1R2R3 in which Y is a single bond, O, NR1 or S; X is O, NR1, S, SO2, C(O)O, C(O)S, C(S)O, C(S)S, C(NR1)O, C(O)NR1, or

halo

(in which case Y and R are absent); R, R1, R2, and R3 are H, alkyl, aryl, aralkyl, alkanoyl, aroyl, aralkanoyl, heterocyclyl, heterocyclylcarbonyl, heterocyclylalkyl, heterocyclylalkylcarbonyl, alkylsulfonyl, or arylsulfonyl and their pharmaceutically acceptable salts or a chem. library comprising a plurality of the glycopeptides of the invention were prepd. for use as antibiotics. Thus, glucose-C6 modified vancomycin derivs. were prepd. and assayed for antimicrobial activity (min. inhibitory concns. are tabulated).

IT 256350-47-7P 256350-49-9P 256350-75-1P  
256350-89-7P

RL: BAC (Biological activity or effector, except adverse); RCT  
(Reactant); Searched by John Dantzman 308-4488

SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of glycopeptide antibiotics and their **combinatorial libraries**)

RN 256350-47-7 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

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CRN 256350-46-6

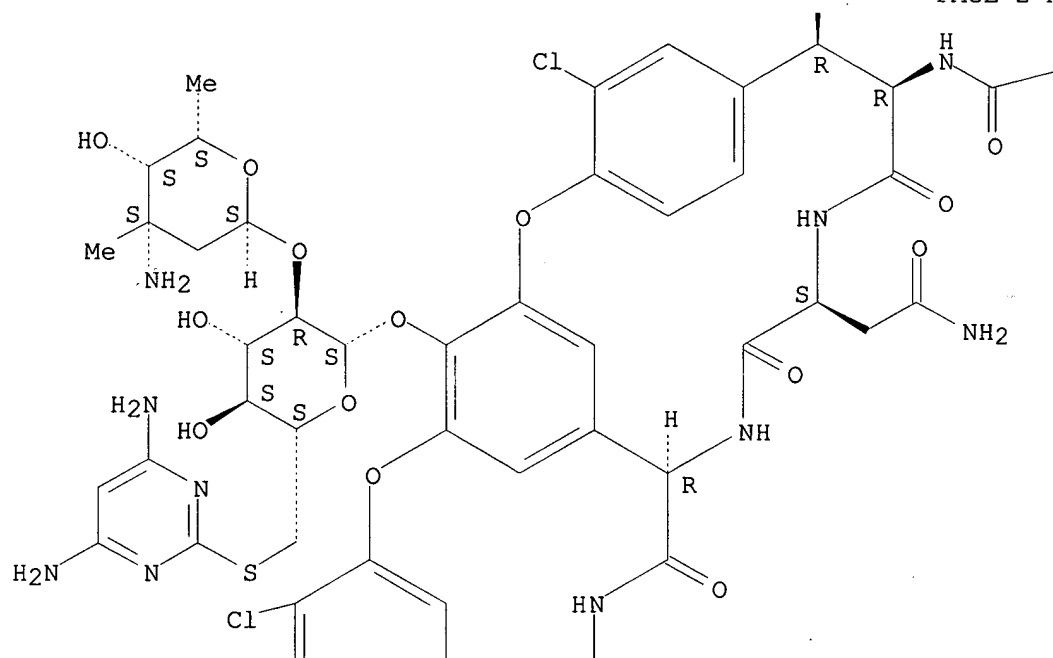
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Absolute stereochemistry.

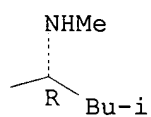
PAGE 1-A

OH  
U

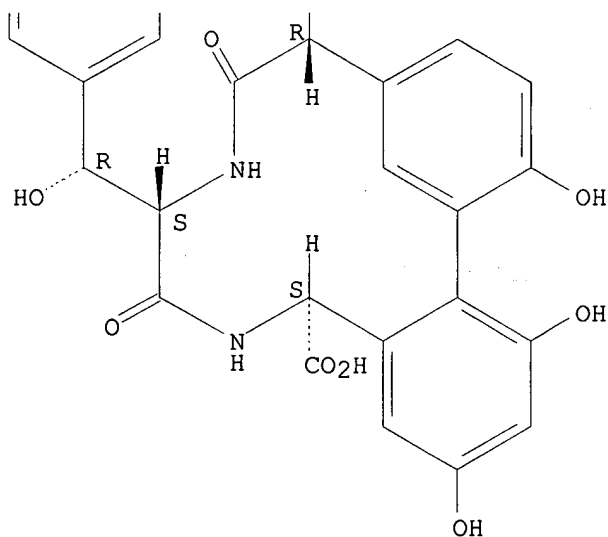
PAGE 2-A



PAGE 2-B



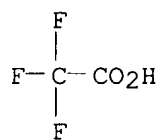
PAGE 3-A



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 256350-49-9 HCAPLUS  
CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 256350-48-8

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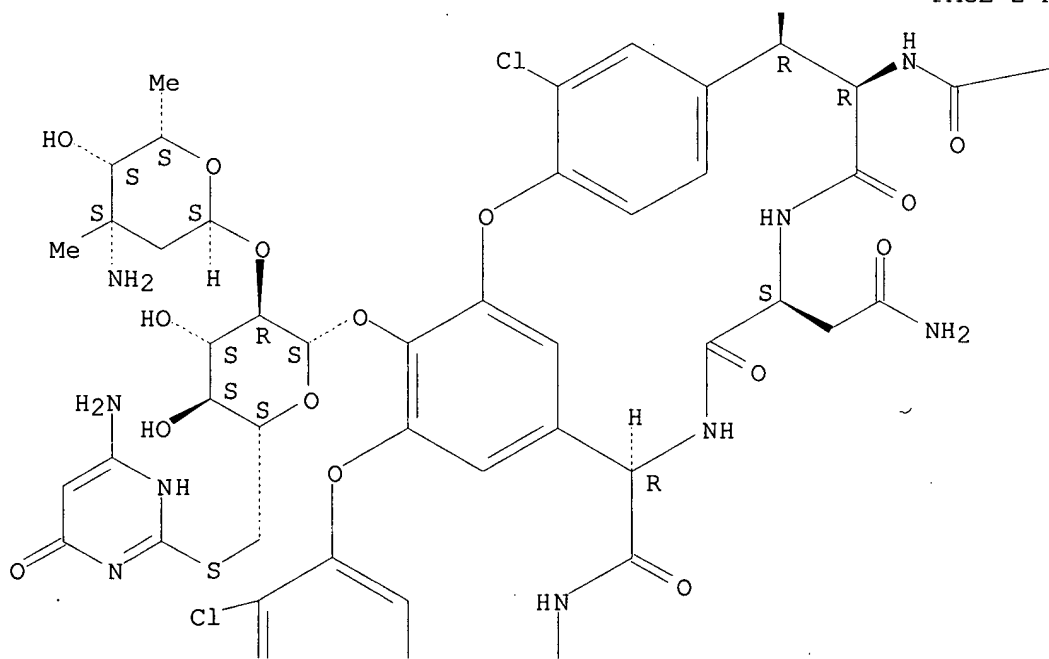
Absolute stereochemistry.

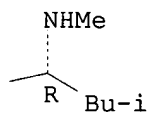


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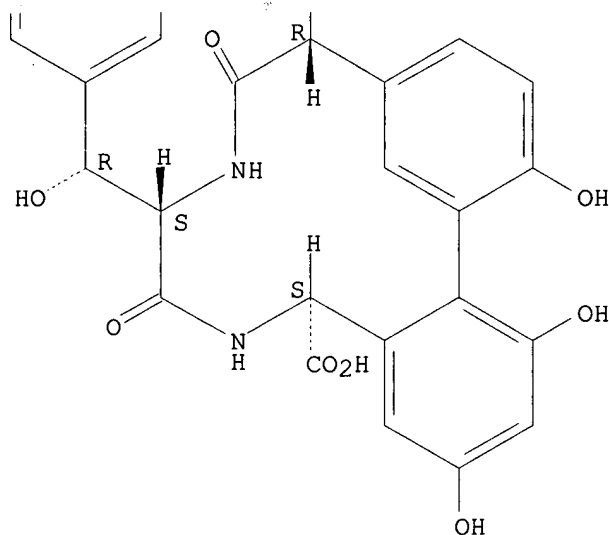
OH  
U

PAGE 2-A





PAGE 2-B

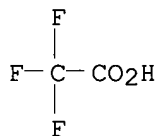


PAGE 3-A

CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 256350-75-1 HCAPLUS  
CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 256350-74-0

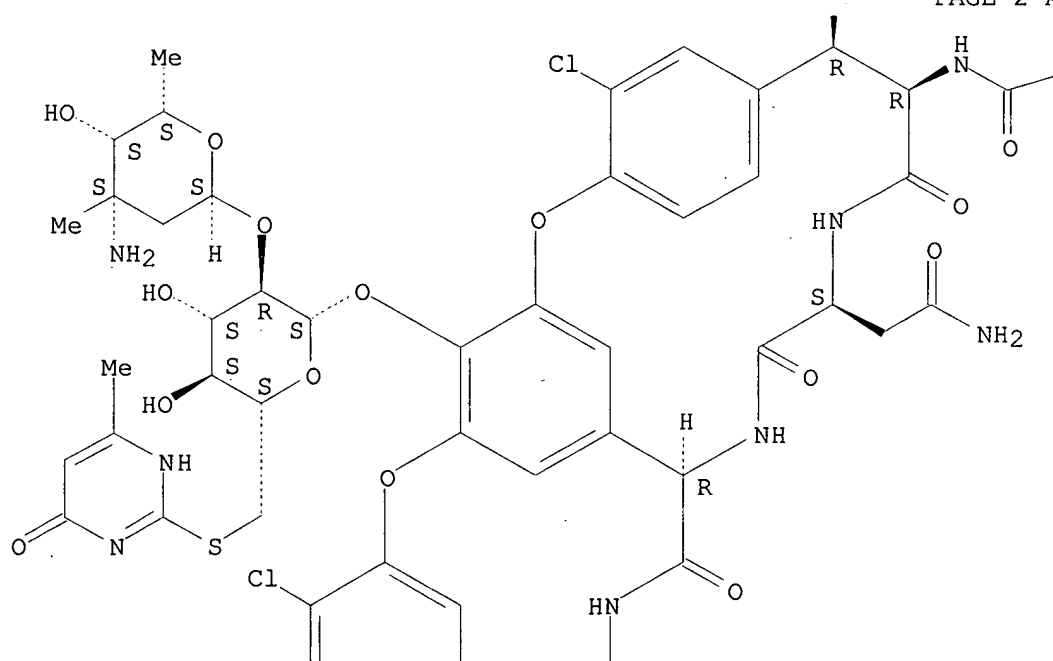
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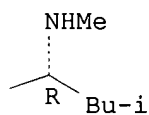
Absolute stereochemistry.

PAGE 1-A

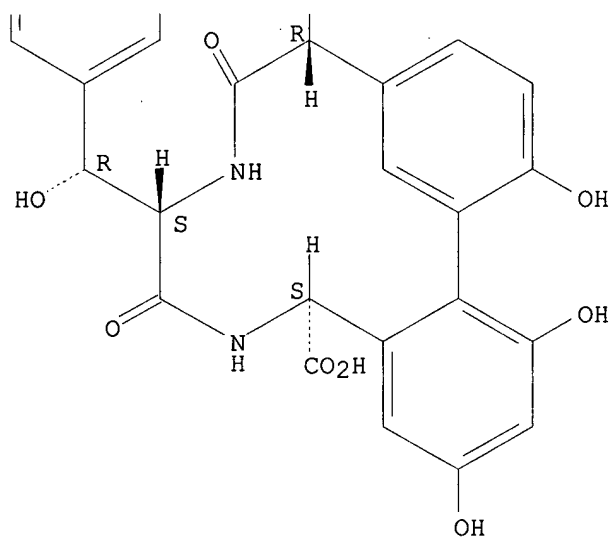


PAGE 2-A





PAGE 2-B

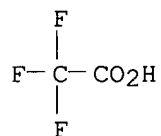


PAGE 3-A

CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 256350-89-7 HCAPLUS  
CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 256350-88-6

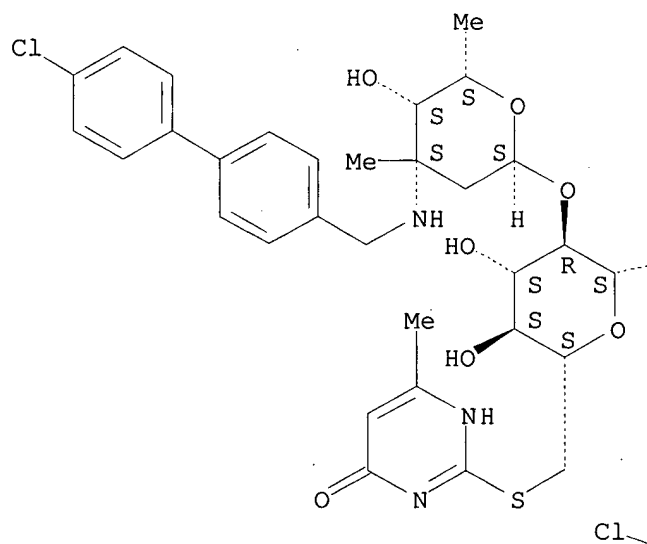
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Absolute stereochemistry.

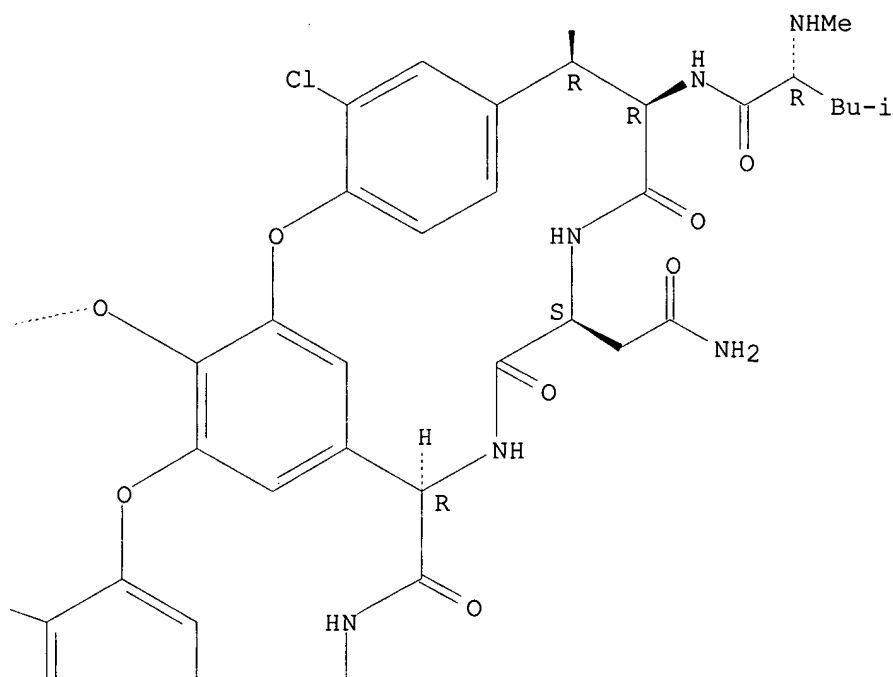
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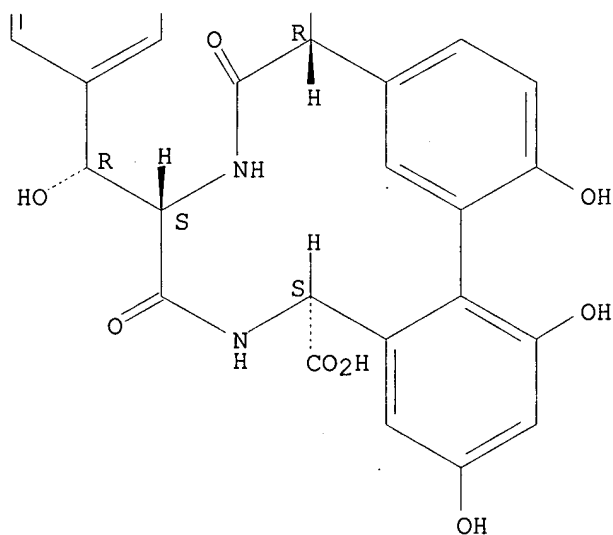
PAGE 2-A



PAGE 2-B



PAGE 3-B



CM 2

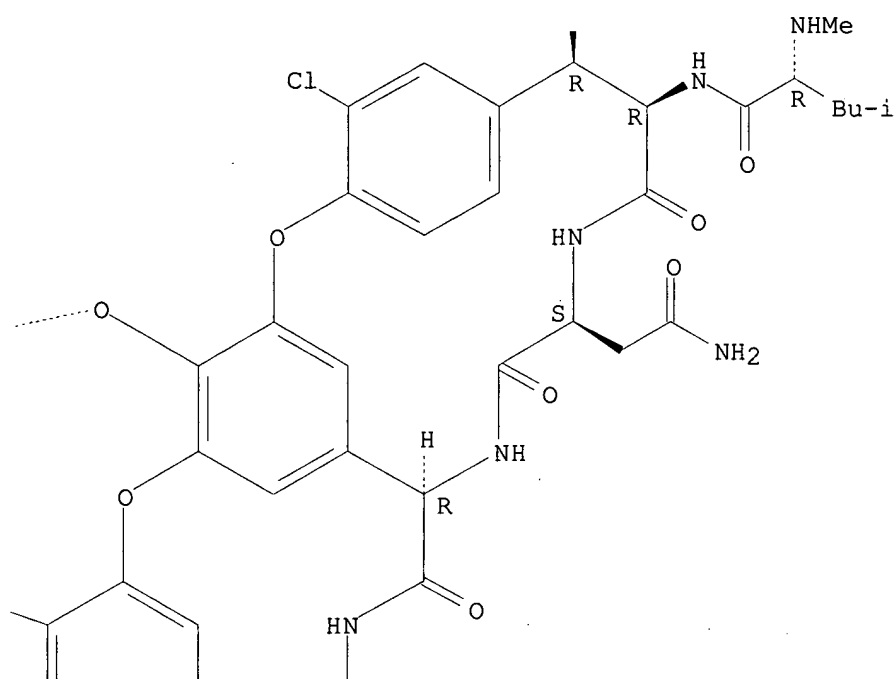
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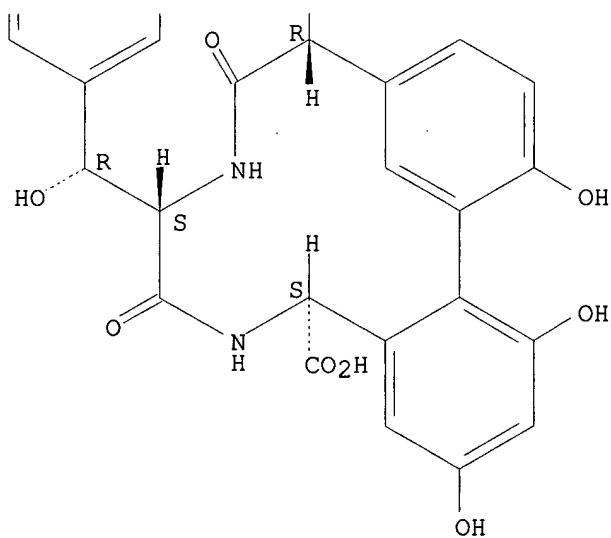
Searched by John Dantzman

308-4488

PAGE 2-B



PAGE 3-B



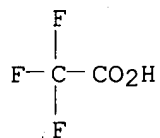
CM 2

CRN 76-05-1

CMF C2 H F3 O2

Searched by John Dantzman

308-4488



IT 256350-74-0P 256350-88-6P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of glycopeptide antibiotics and their **combinatorial libraries**)

RN 256350-74-0 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

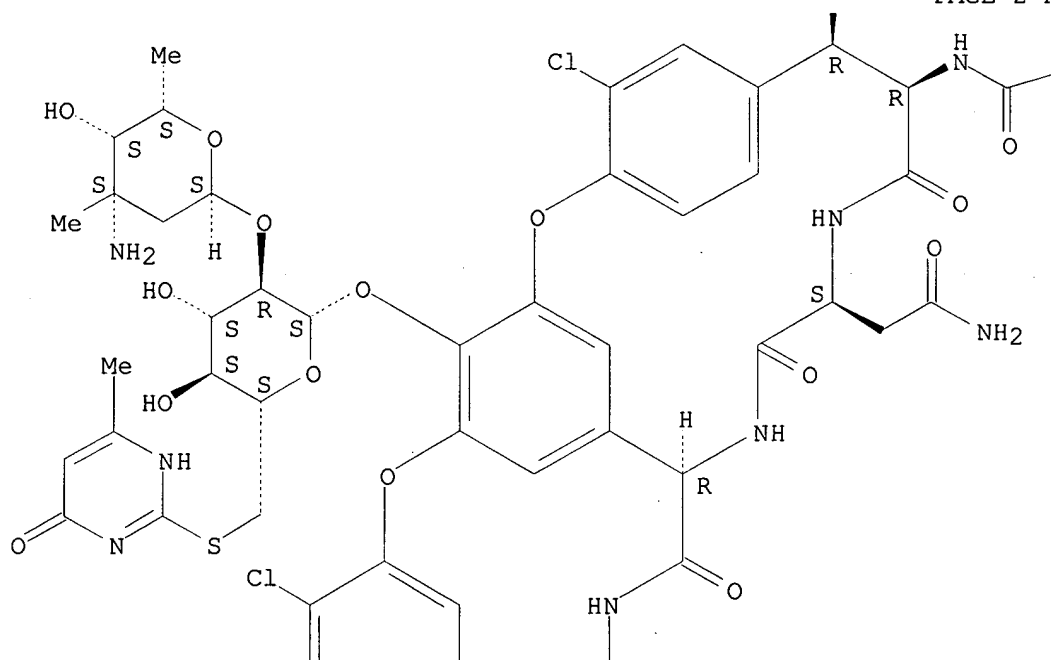
Absolute stereochemistry.

PAGE 1-A

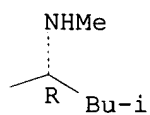
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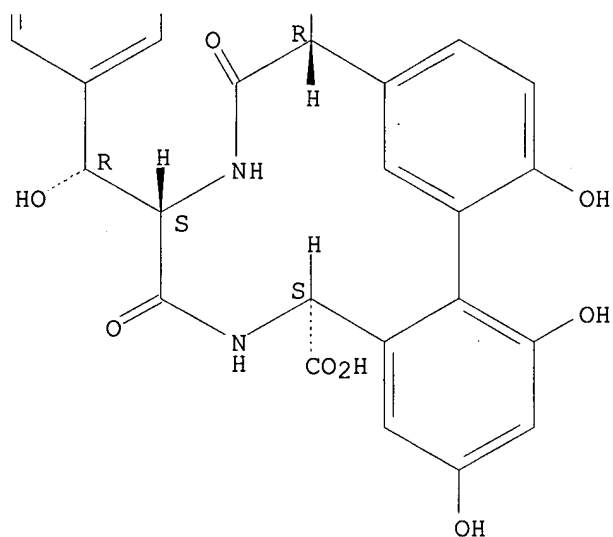
PAGE 2-A



PAGE 2-B



PAGE 3-A



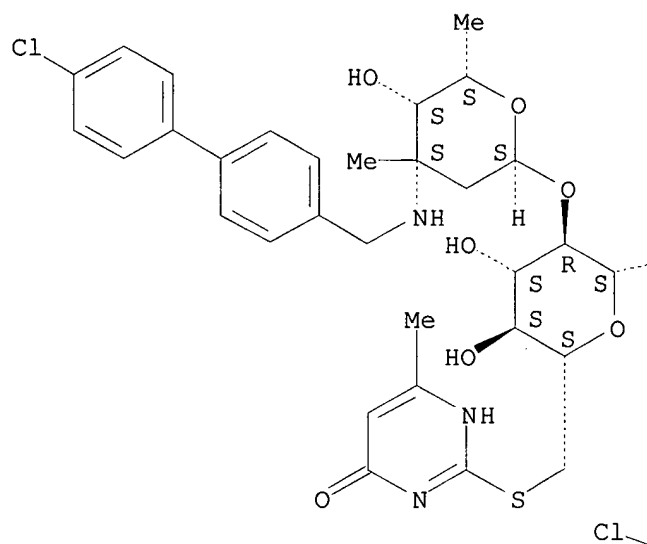
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CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.

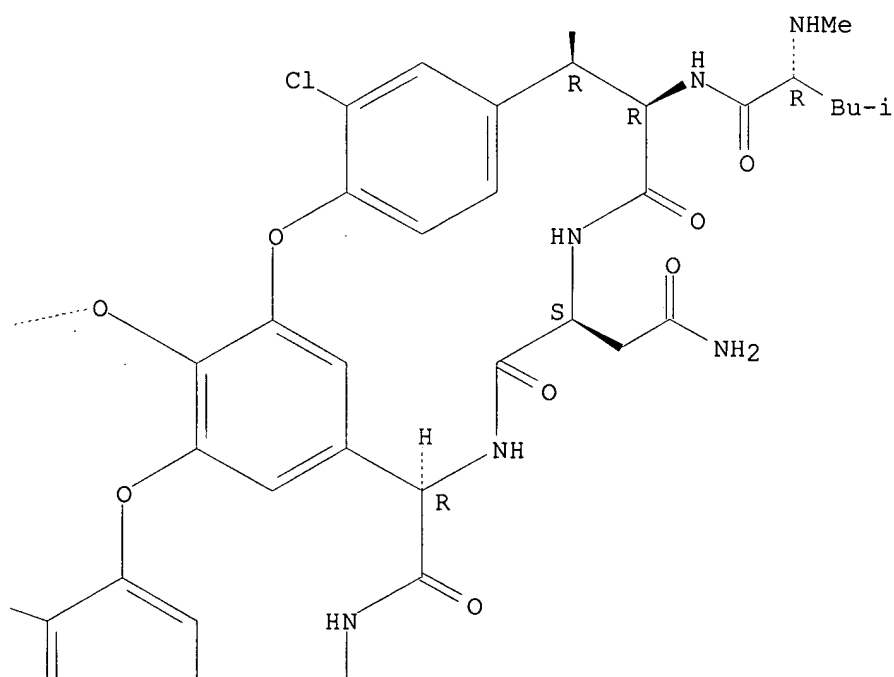
PAGE 1-B

OH  
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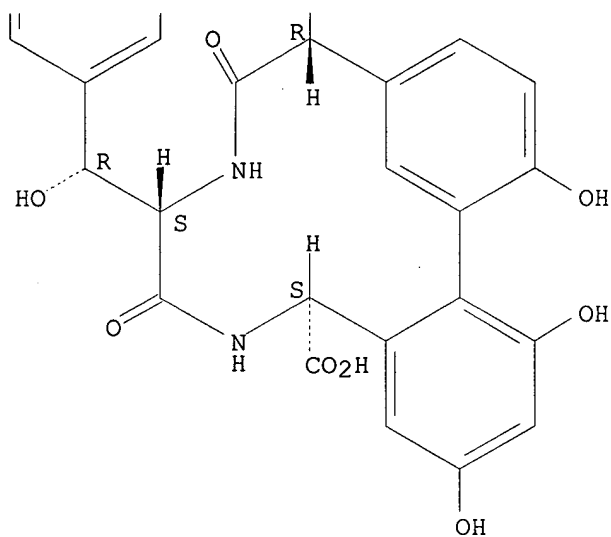
PAGE 2-A



PAGE 2-B



PAGE 3-B



=> d bib abs hitstr 144 2

L44 ANSWER 2 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:794249 HCAPLUS

DN 132:31734

TI Normalized DNA libraries and method of preparation from environmental samples

IN Short, Jay M.; Mathur, Eric J.

PA Diversa Corporation, USA

SO U.S., 18 pp., Cont.-in-part of U.S. 5,763,239.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6001574	A	19991214	US 1998-34724	19980304
	<del>US 5763239</del>	A	19980609	US 1996-665565	19960618
	CA 2258175	AA	19971224	CA 1997-2258175	19970618
	WO 9945154	A1	19990910	WO 1999-US4917	19990304
	W: AU, CA, JP, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9928981	A1	19990920	AU 1999-28981	19990304

PRAI US 1996-665565 19960618

US 1998-34724 19980304

WO 1999-US4917 19990304

AB Disclosed is a process for forming a normalized genomic DNA library from an environmental sample by (a) isolating a genomic DNA population from the

environmental sample; (b) at least one of (i) amplifying the copy no. of the DNA population so isolated and (ii) recovering a fraction of the isolated genomic DNA having a desired characteristic; and (c) normalizing the representation of various DNAs within the genomic DNA population so

as to form a normalized library of genomic DNA from the environmental sample.

Also disclosed is a normalized genomic DNA library formed from an environmental sample by the process. A process for prepg. a DNA library from an endosymbiont of the gill tissue of a clam and screening for

enzyme

activity is described. Thus, the 16S rRNA DNA from lysed samples was amplified by PCR and the amplified DNA was subjected to complexity anal. DNA was isolated by bis-benzimide/CsCl gradient and the selected DNA was normalized by denaturing and renaturing and sepn. of single from double-stranded DNA. The single-stranded DNA represents the rare or low-abundance nucleic acids and are used to generate libraries. An

addnl.

example covers the construction of a stable, large insert picoplankton genomic DNA library from oceanog. samples.

IT 70755-49-6

RL: PRP (Properties)

(unclaimed sequence; normalized DNA **libraries** and method of prepn. from environmental samples)

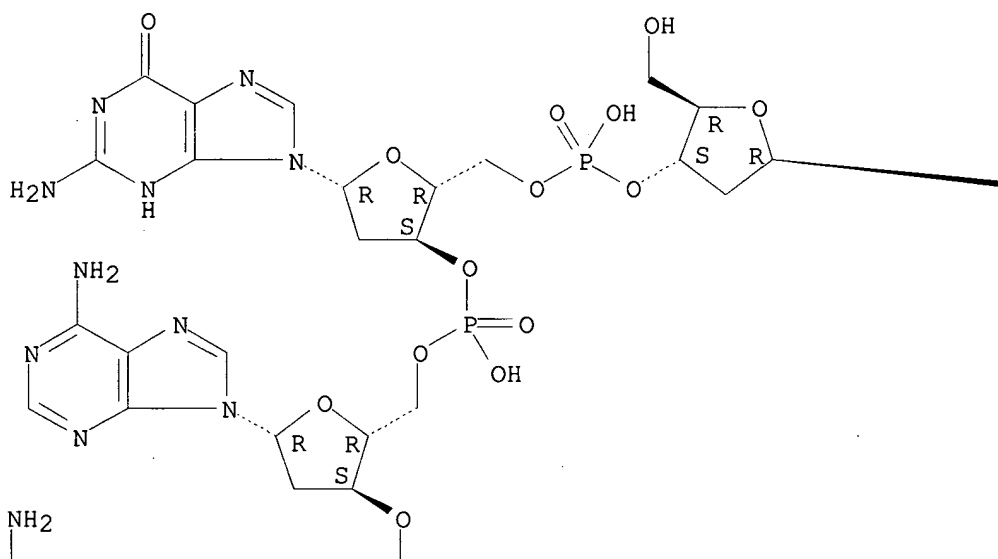
RN 70755-49-6 HCAPLUS

Searched by John Dantzman 308-4488

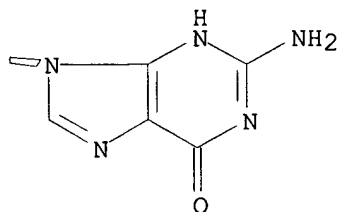
CN Cytidine,  
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-  
2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidylyl-  
(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-  
2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

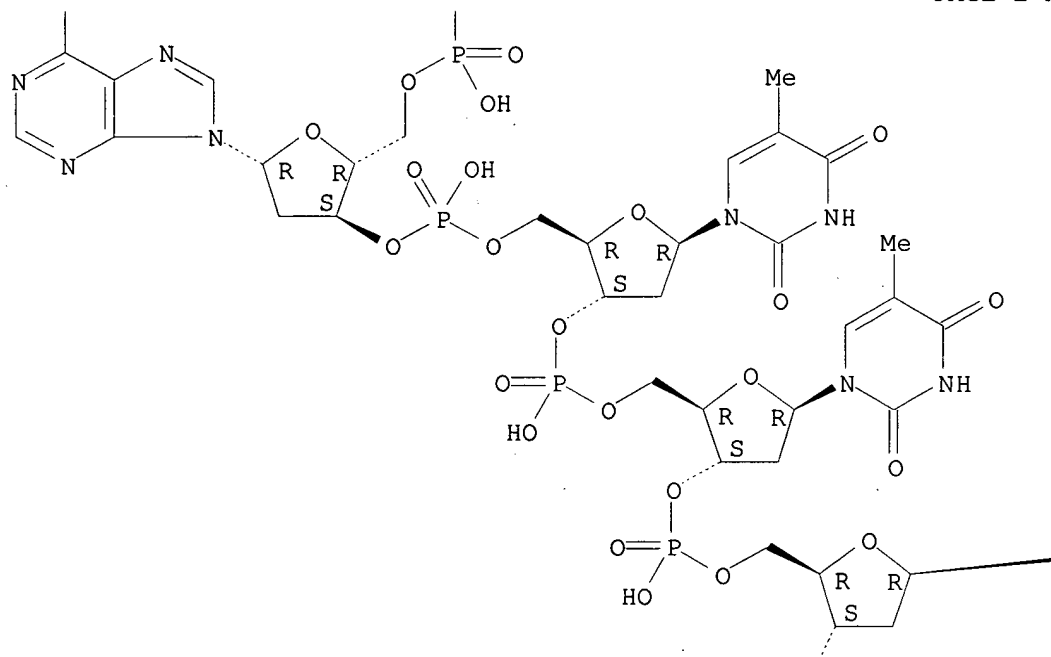
PAGE 1-A



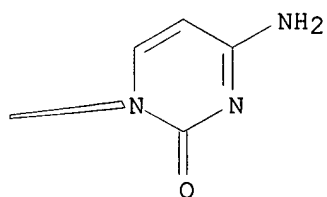
PAGE 1-B



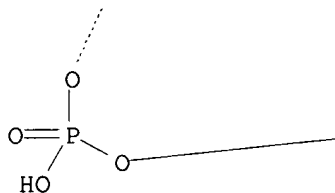
PAGE 2-A



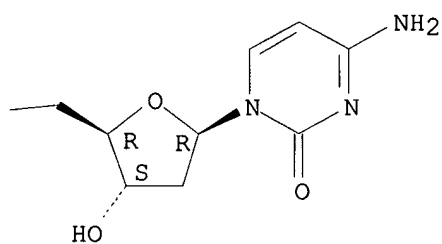
PAGE 2-B



PAGE 3-A



PAGE 3-B





=> d bib abs hitstr 144 3

L44 ANSWER 3 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:736978 HCAPLUS

DN 131:347465

TI Primers and probes for detection of genes in libraries and analysis of gene expression

IN Abdelatty, Fawzy

PA Deutsches Krebsforschungszentrum Stiftung Des Offentlichen Rechts, Germany

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9958712	A2	19991118	WO 1999-DE1423	19990511
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

	DE 19820982	A1	19991118	DE 1998-19820982	19980512
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PRAI DE 1998-19820982 19980512

~~AB~~ The present invention relates to a method for detecting genes and the expression thereof, whereby DNA is amplified with gene-specific primers and the amplified DNA is used for hybridization purposes with a DNA library. The invention is based on the discovery that there are highly conserved CpG islands in the transcribed 5'-flanking regions of genes. These are found in genes of animals, plants and viruses. The sequences have a palindromic structure and contain a complete or fragmentary recognition sequence of rare-cutting restriction enzymes. Using these oligonucleotides as primers, gene fragments may be amplified and the amplified fragments used to detect genes or analyze gene expression. Thus, using probes generated from human X chromosome-contg. mouse cell line 578, genes in an X chromosome gene library were identified.

IT 82709-23-7, Ggccggcc

RL: ARG (Analytical reagent use); BPR (Biological process); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)

(PCR primer/FseI restriction site; primers and probes for detection of genes in **libraries** and anal. of gene expression)

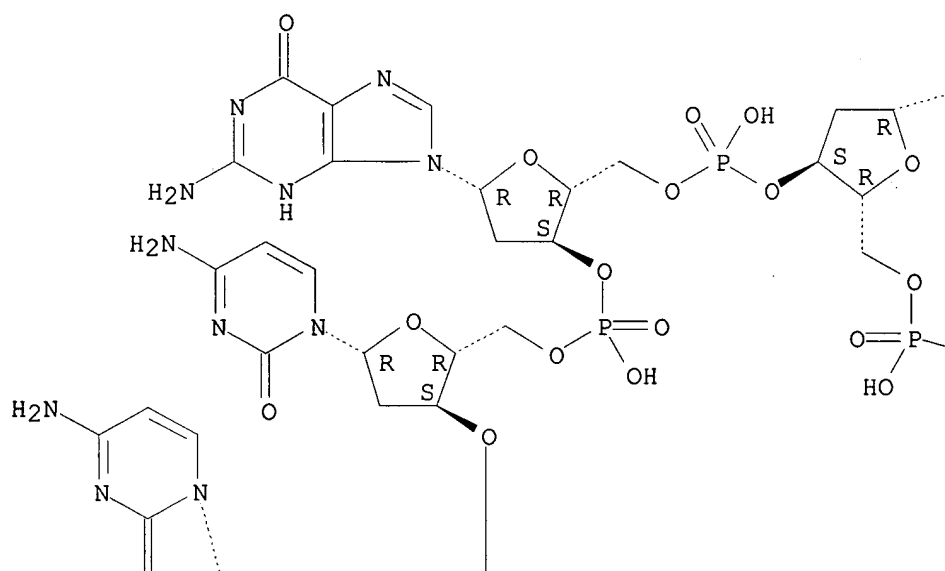
RN 82709-23-7 HCAPLUS

CN Cytidine,

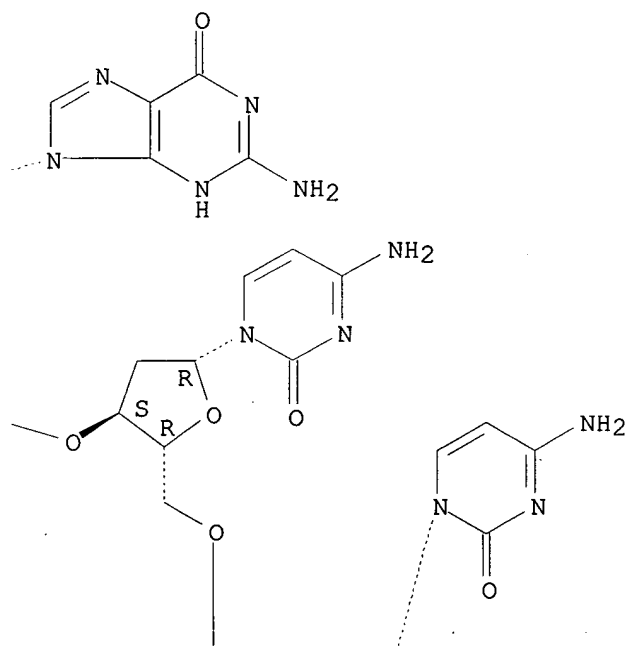
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

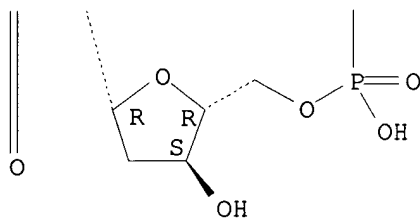
PAGE 1-A



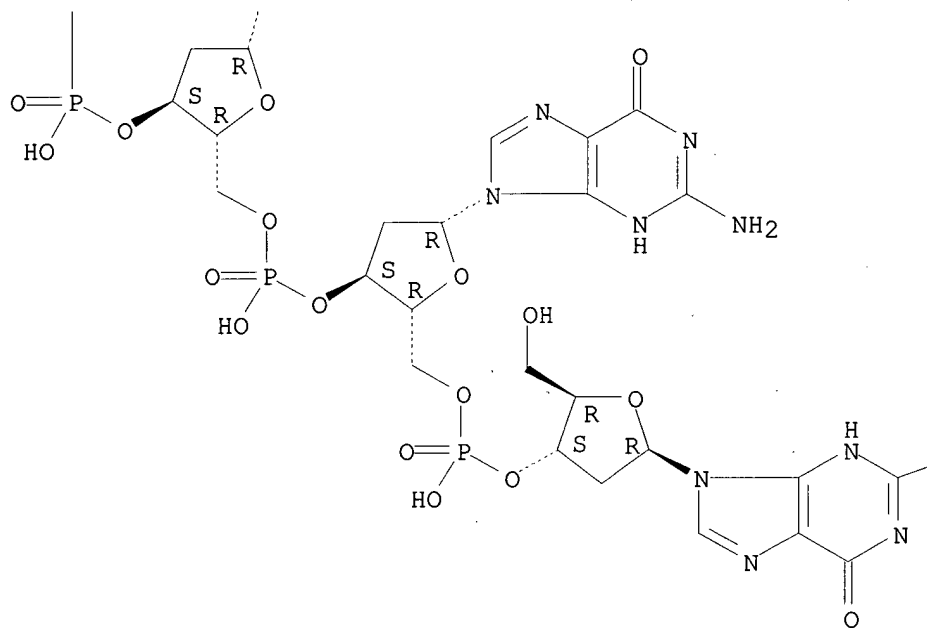
PAGE 1-B



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PAGE 2-B



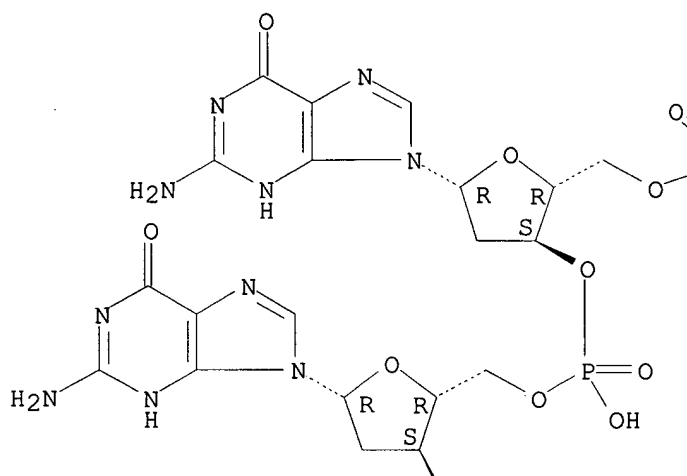
PAGE 2-C

—NH<sub>2</sub>

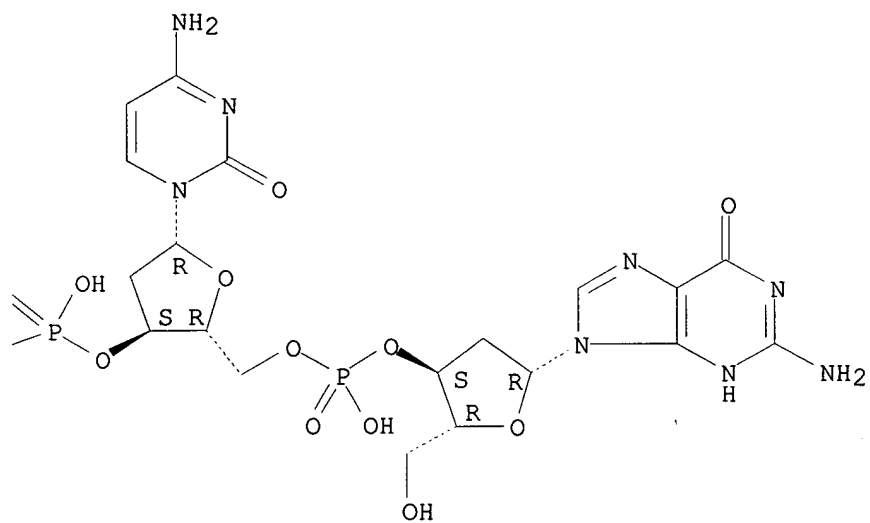
IT 139593-83-2, Gcggccgc  
RL: ARG (Analytical reagent use); BPR (Biological process); PRP  
(Properties); ANST (Analytical study); BIOL (Biological study); PROC  
(Process); USES (Uses)  
(PCR primer/NotI restriction site; primers and probes for detection of  
genes in **libraries** and anal. of gene expression)  
RN 139593-83-2 HCAPLUS  
CN Cytidine,  
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-  
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

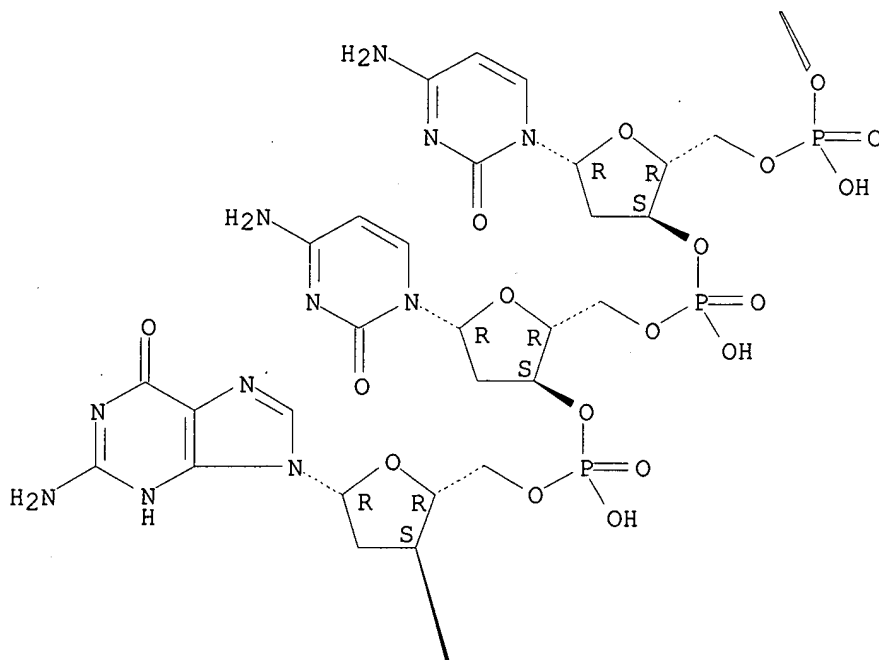
PAGE 1-A



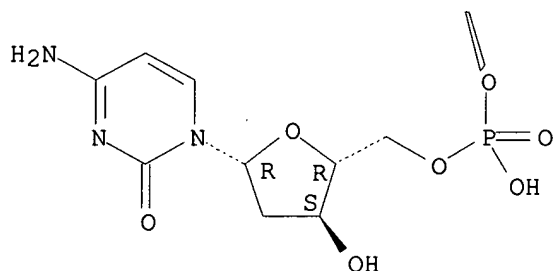
PAGE 1-B



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PAGE 3-A



IT 122414-09-9, Cgcccgcg

RL: ARG (Analytical reagent use); BPR (Biological process); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)

(PCR primer/SgrAI restriction site; primers and probes for detection of genes in **libraries** and anal. of gene expression)

RN 122414-09-9 HCAPLUS

CN Guanosine, 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA

INDEX

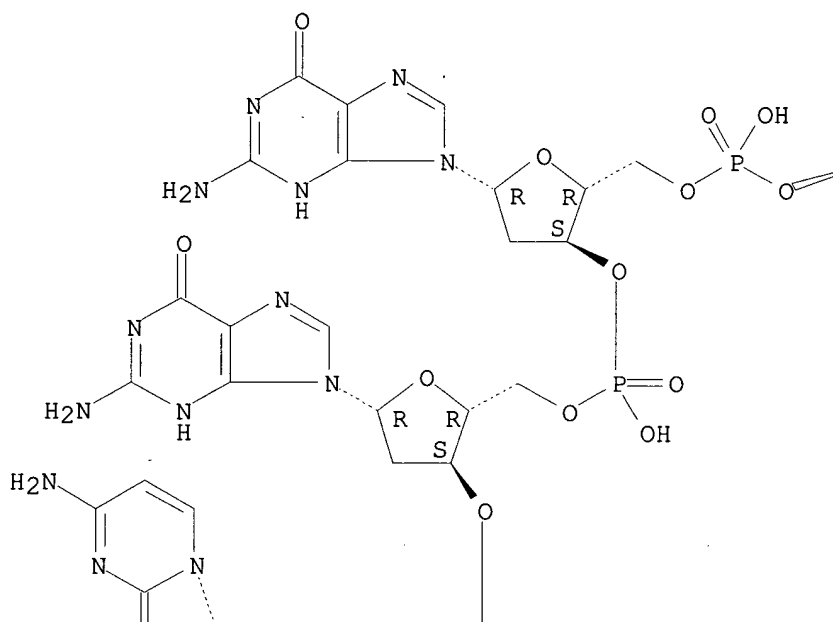
NAME)

Searched by John Dantzman

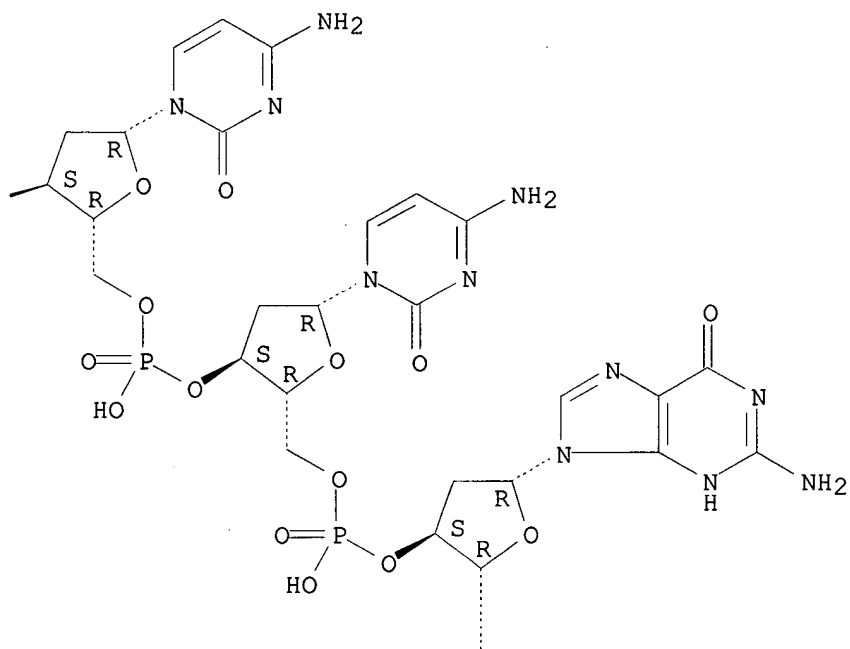
308-4488

Absolute stereochemistry.

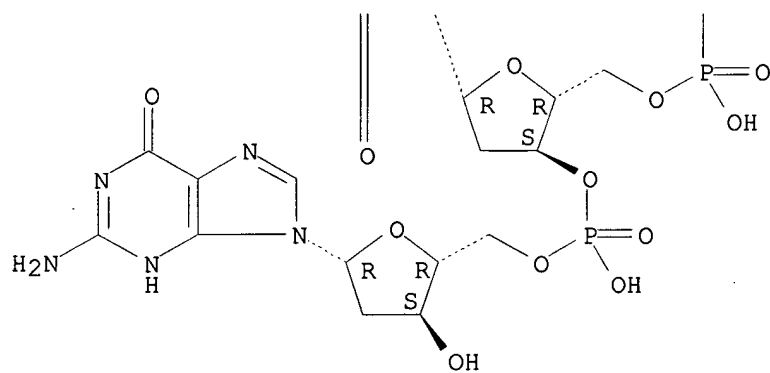
PAGE 1-A



PAGE 1-B

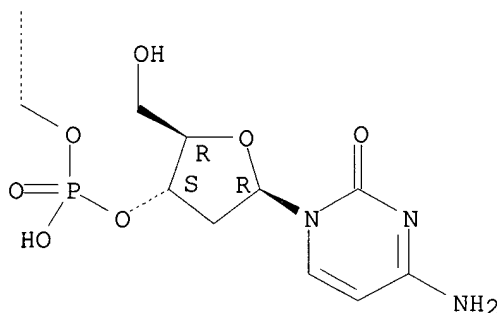


PAGE 2-A





PAGE 2-B

IT **103739-37-3**, Gccccgggc

RL: ARG (Analytical reagent use); BPR (Biological process); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)

(PCR primer/SrfI restriction site; primers and probes for detection of genes in **libraries** and anal. of gene expression)

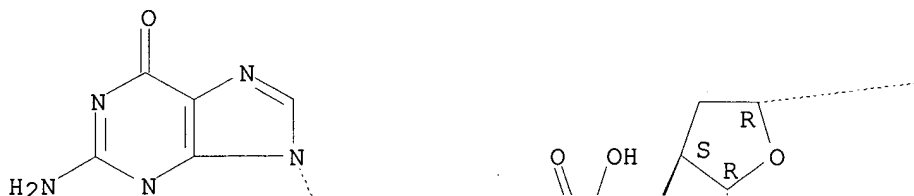
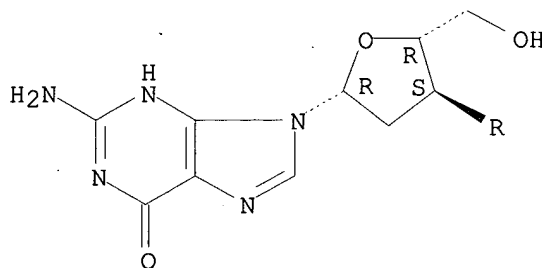
RN 103739-37-3 HCAPLUS

CN Cytidine,

2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

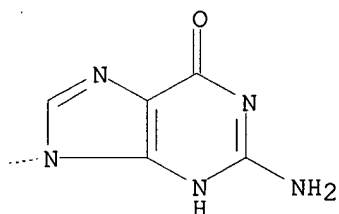
PAGE 1-A



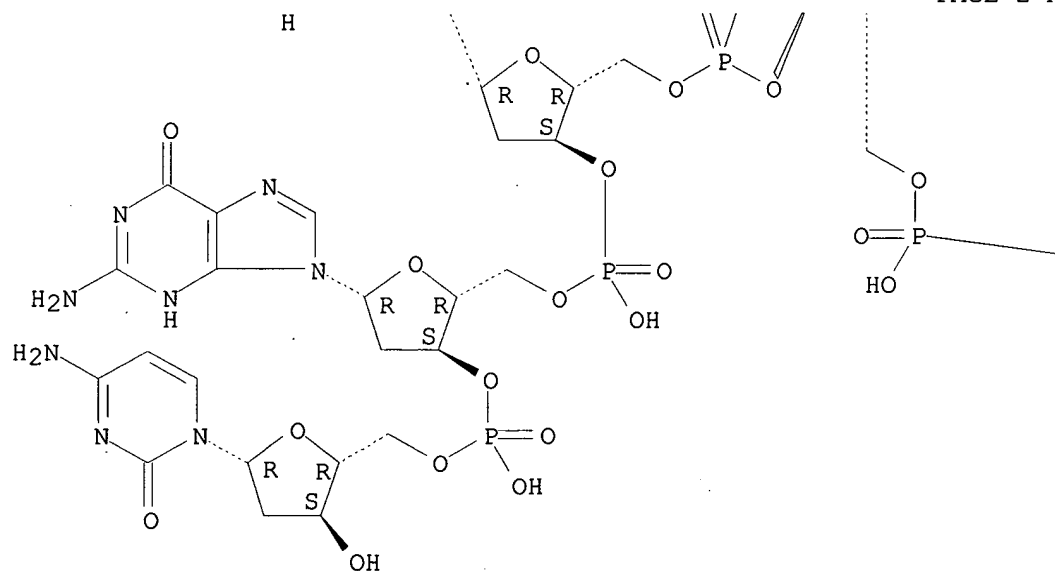
Searched by John Dantzman

308-4488

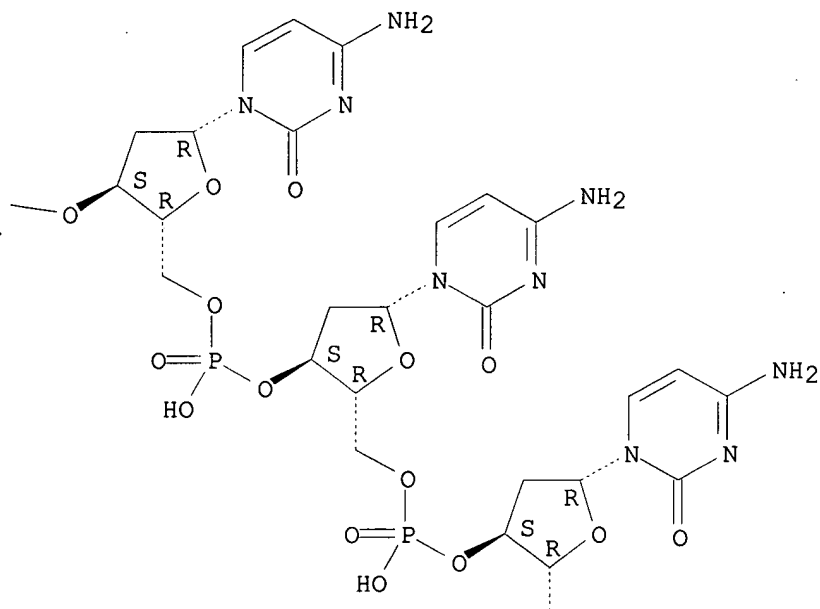
PAGE 1-B



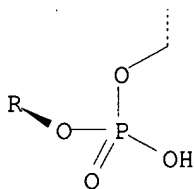
PAGE 2-A



PAGE 2-B



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=> d bib abs hitstr 144 4

L44 ANSWER 4 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:659525 HCAPLUS

DN 131:282400

TI Method for producing libraries of expressible gene sequences using coding region-specific primers and enzymic insertion into expression vectors

IN Fernandez, Joseph Manuel; Heyman, John Alastair; Hoeffler, James Paul; Marks-Hull, Heather Lynn; Sindici, Michelle Lynn

PA Invitrogen, USA

SO PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9951766	A1	19991014	WO 1999-US7270	19990402
	W: AU, CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9935482	A1	19991025	AU 1999-35482	19990402
PRAI	US 1998-54936		19980403		
	WO 1999-US7270		19990402		

AB Claimed is a method for producing libraries of expressible gene sequences comprising: (a) amplifying a plurality of coding regions using at least one coding region specific primer, (b) inserting each coding region into an expression vector, and (c) verifying the size and orientation of the inserted coding region. The method of the invention allows for the simultaneous manipulation of multiple gene sequences and thus allows libraries to be created in an efficient and high throughput manner. The expression vectors contg. verified gene sequences can be used to

transfect

cells for the prodn. of recombinant proteins. The invention further comprises libraries of expressible gene sequences produced using the method of the invention and expression vectors used in the construction

of

said libraries.

IT 246024-69-1

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

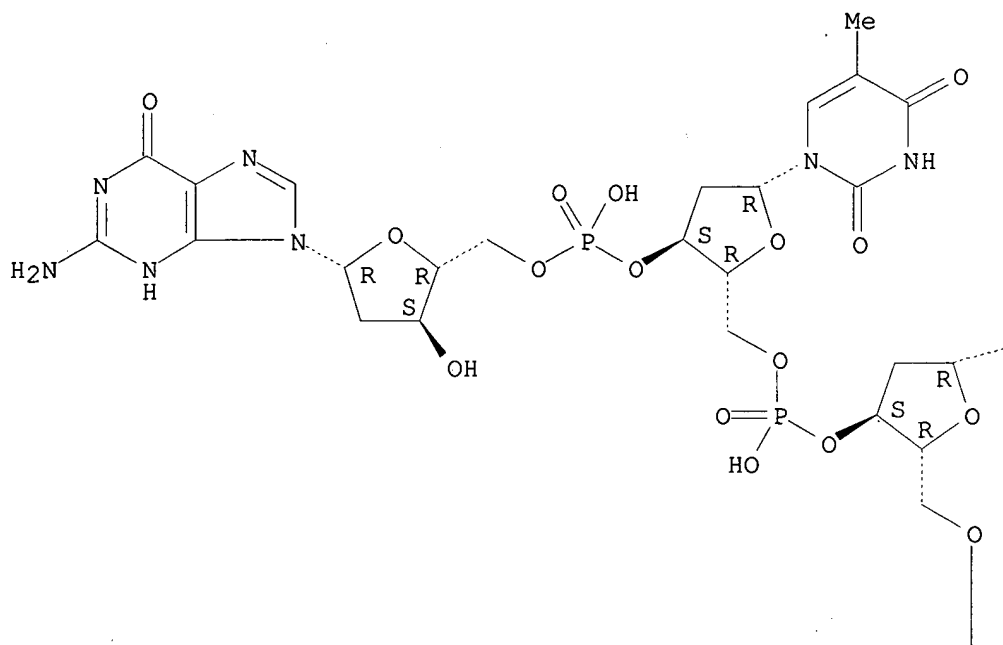
(5'-primer; producing **libraries** of expressible gene sequences using coding region-specific primers and enzymic insertion into expression vectors)

RN 246024-69-1 HCAPLUS

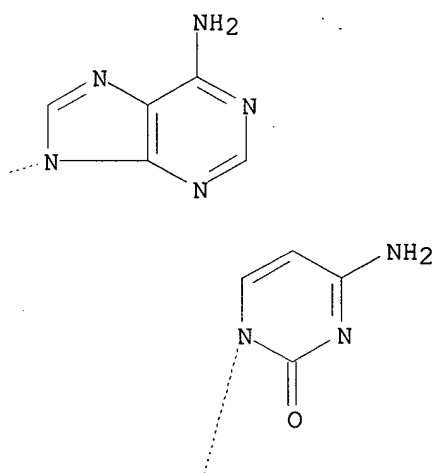
CN Guanosine, 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

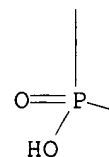
PAGE 1-A



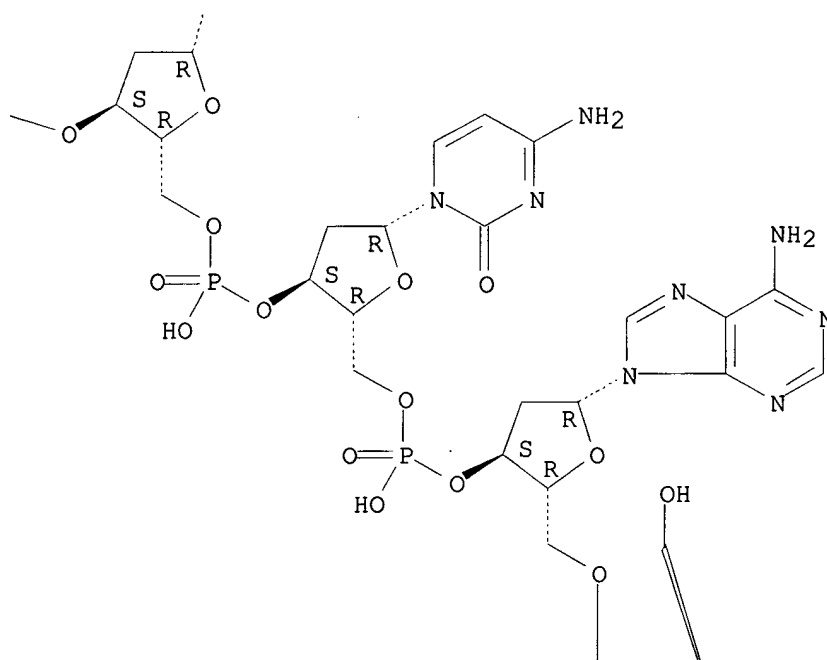
PAGE 1-B



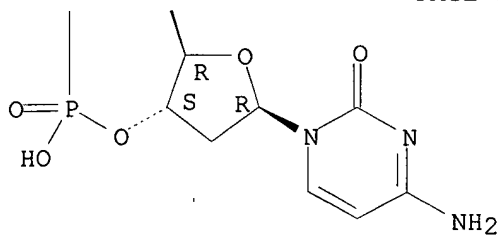
PAGE 2-A



PAGE 2-B



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IT 246024-70-4

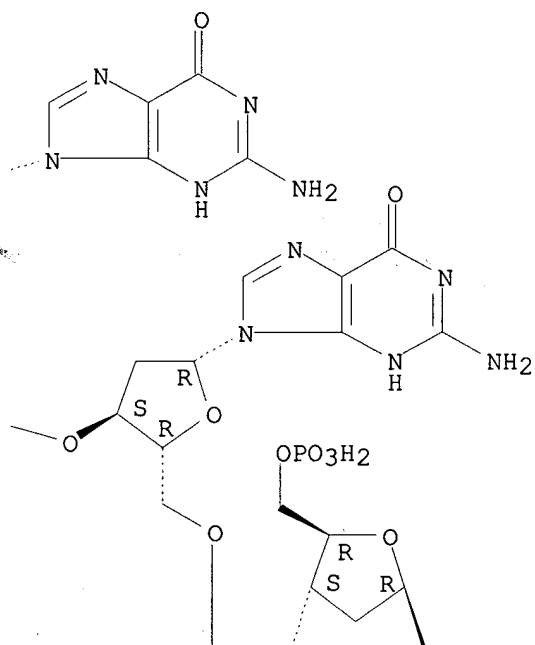
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(Topo-4 oligonucleotide; producing **libraries** of expressible

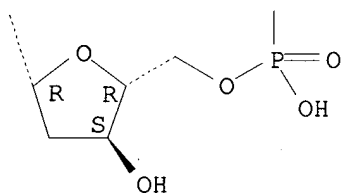
Searched by John Dantzman 308-4488



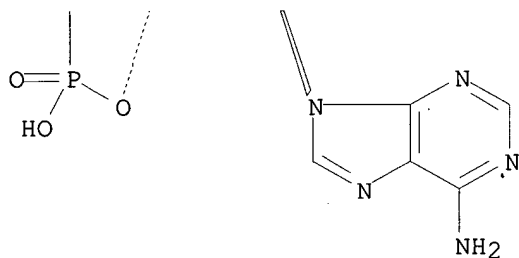
PAGE 1-B



PAGE 2-A



PAGE 2-B





=> d bib abs hitstr 144 5

L44 ANSWER 5 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:614469 HCAPLUS

DN 132:768

TI Isolation of altered specificity mutants of the single-chain 434 repressor

that recognize asymmetric DNA sequences containing the TTAA and TTAC subsites

AU Simoncsits, Andras; Tjornhammar, Marie-Louise; Wang, Shenglun; Pongor, Sandor

CS International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste, I-34012, Italy

SO Nucleic Acids Res. (1999), 27(17), 3474-3480  
CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

DT Journal

LA English

AB A novel single-chain (s.c.) protein framework contg. covalently dimerized DNA-binding domains (DBD) of the phage 434 repressor was used to construct

combinatorial mutant libraries to isolate mutant DBDs with altered specificities. The library members contain one wild-type DBD and one mutant domain with randomized amino acids in the DNA-contacting region. Based on previous studies, the mutant s.c. derivs. are expected to recognize a general ACAA-6 bp-NNNN sequence, where ACAA is contacted by the wild-type and NNNN by the mutant domain. In principle, any sequence can stand for NNNN and serve as a selection target. Here an in vivo library screening method was used to isolate mutant s.c. repressors that interact with an asym. operator contg. the TTAA target. Several mutants showed high affinity in vitro binding to operators contg. the target and strong (up to 80-fold) preference for the TTAA target over the wild-type TTGT. Specificity studies revealed that certain mutants bound with substantially higher affinities ( $K_d$  approx. 10-11 M) to operators contg. the TTAC sequence, a close homolog of the TTAA target. Thus, the authors have fortuitously isolated mutant s.c. repressors that show up to a several hundred-fold preference for TTAC over TTGT.

IT 158325-10-1

RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
(isolation of mutant single-chain 434 repressor that recognize asym.  
DNA sequences contg. TTAA and TTAC subsites from **combinatorial library**)

RN 158325-10-1 HCAPLUS

CN Adenosine, 2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxy-, double-stranded complementary (9CI) (CA INDEX NAME)

CM 1

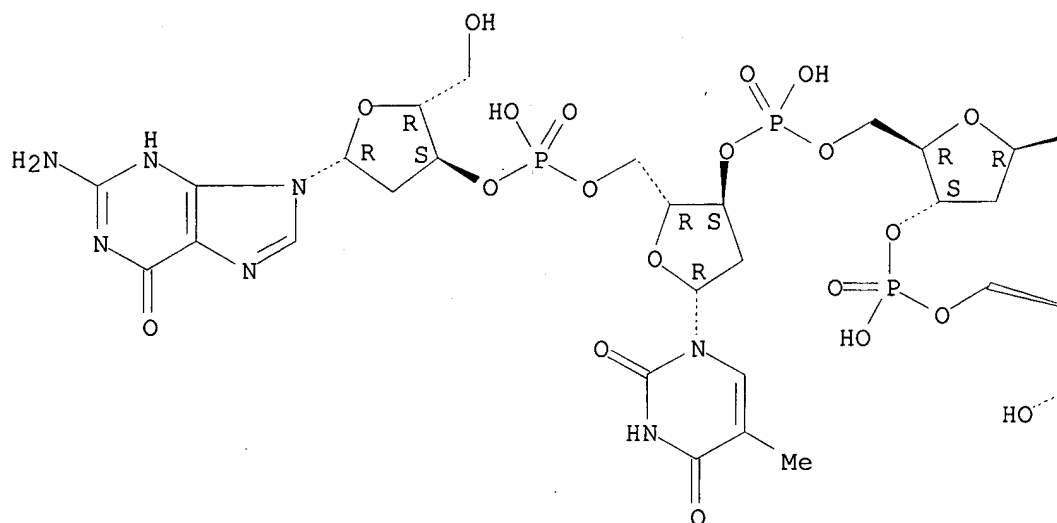
CRN 47921-42-6

CMF C40 H50 N17 O21 P3

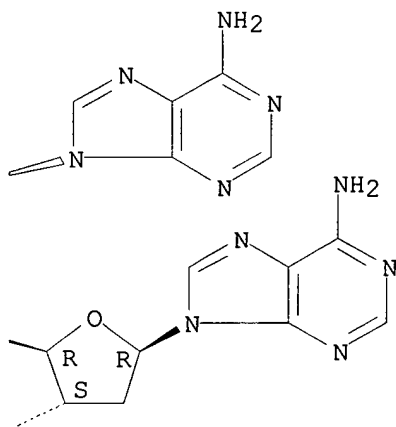
CDES 5:ALL,B-D-ERYTHRO

Absolute stereochemistry.

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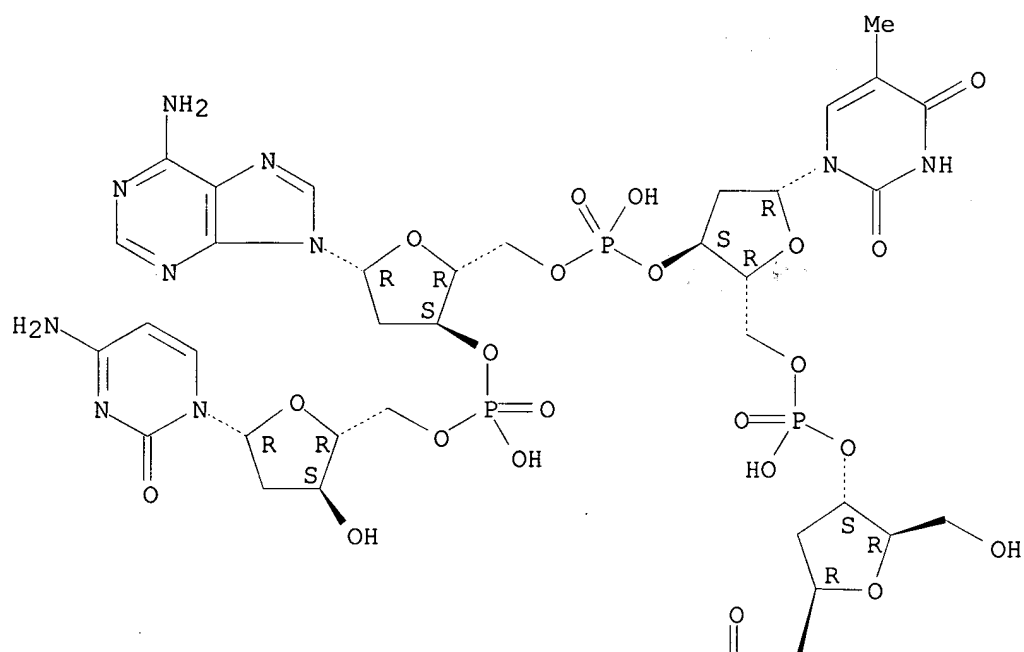


CM 2

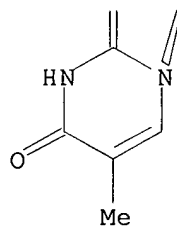
CRN 47918-46-7  
CMF C39 H51 N12 O23 P3  
CDES 5:ALL, B-D-ERYTHRO

Absolute stereochemistry.

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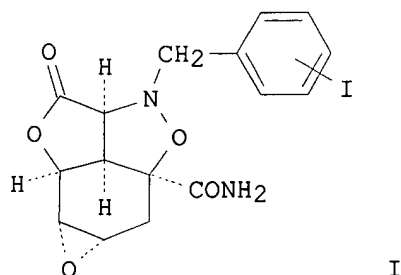


PAGE 2-A



=> d bib abs hitstr 144 6

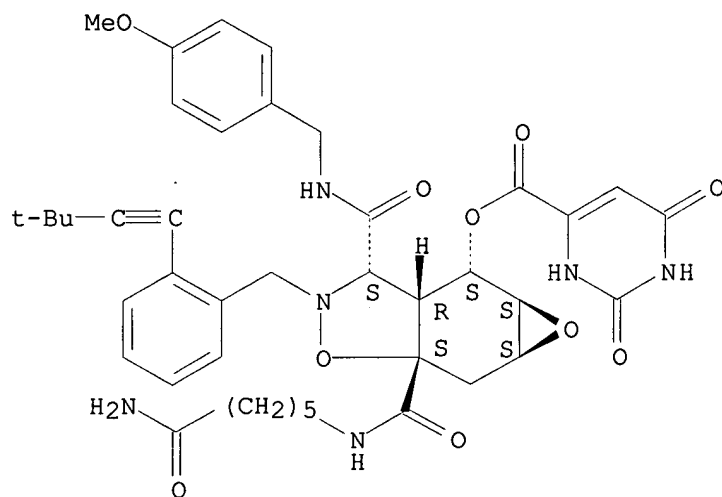
L44 ANSWER 6 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1999:596166 HCAPLUS  
DN 132:22896  
TI Synthesis and Preliminary Evaluation of a Library of Polycyclic Small  
Molecules for Use in Chemical Genetic Assays  
AU Tan, Derek S.; Foley, Michael A.; Stockwell, Brent R.; Shair, Matthew D.;  
Schreiber, Stuart L.  
CS Howard Hughes Medical Institute Department of Chemistry and Chemical  
Biology and Harvard Institute of Chemistry and Cell Biology, Harvard  
University, Cambridge, MA, 02138, USA  
SO J. Am. Chem. Soc. (1999), 121(39), 9073-9087  
CODEN: JACSAT; ISSN: 0002-7863  
PB American Chemical Society  
DT Journal  
LA English  
GI



AB (-)-Shikimic acid, was converted into both enantiomers of  
2-hydroxyoxabicyclo[4.1.0]hept-3-ene-4-carboxylic acid which were  
attached  
to a solid support via a photocleavable linker. Tandem  
acylation-1,3-dipolar cycloaddn. with nitrones yielded tetracyclic  
templates I. After development of several efficient coupling reactions  
of  
I and completion of extensive validation protocols, a split-pool  
synthesis  
yielded a binary encoded library calcd. to contain 2.18 million  
polycyclic  
comps. These comps. are compatible with miniaturized cell-based  
forward  
chem. genetic assays designed to explore biol. pathways and reverse chem.  
genetic assays designed to explore protein function. As a simple  
illustration of the potential of these comps., several were shown to  
activate a TGF- $\beta$ -responsive reporter gene in mammalian cells.  
IT 213030-16-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of a alkynylbenzyl(acyloxy)benzisoxazolidinecarboxamide  
Searched by John Dantzman 308-4488

library for use in genetic assays)  
RN 213030-16-1 HCAPLUS  
CN 4-Pyrimidinecarboxylic acid, 1,2,3,6-tetrahydro-2,6-dioxo-,  
(3S,3aR,4S,4aS,5aS,6aS)-6a-[[[(6-amino-6-oxohexyl)amino]carbonyl]-2-[[2-(  
(3,3-dimethyl-1-butynyl)phenyl)methyl]octahydro-3-[[[(4-  
methoxyphenyl)methyl]amino]carbonyl]oxireno[f]-1,2-benzisoxazol-4-yl  
ester  
(9CI) (CA INDEX NAME)

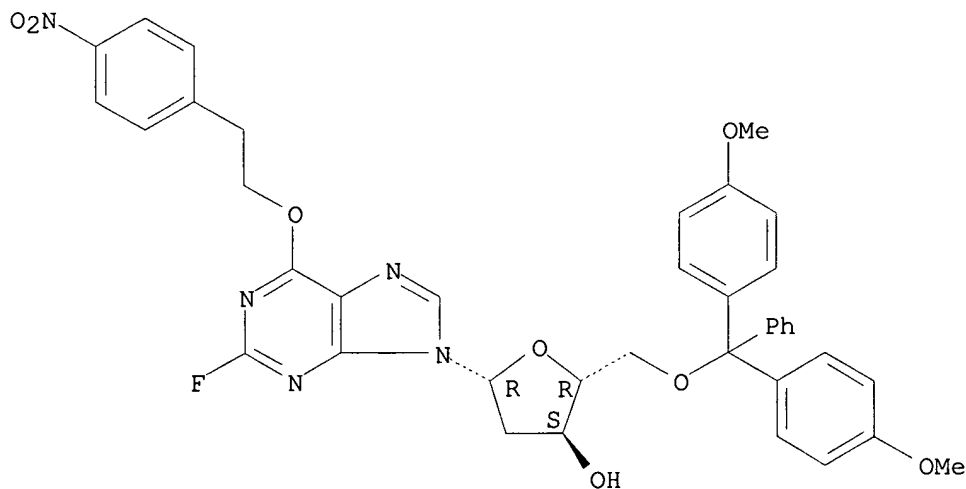
Absolute stereochemistry.



=> d bib abs hitstr 144 7

L44 ANSWER 7 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1999:514950 HCAPLUS  
DN 131:257793  
TI Synthesis of polyamino-oligonucleotides and their combinatorial libraries  
AU Markiewicz, Wojciech T.; Godzina, Przemyslaw; Markiewicz, Maria  
CS Institute of Bioorganic Chemistry, Polish Academy of Sciences, Poznan,  
PL-61704, Pol.  
SO Nucleosides Nucleotides (1999), 18(6 & 7), 1449-1454  
CODEN: NUNUD5; ISSN: 0732-8311  
PB Marcel Dekker, Inc.  
DT Journal  
LA English  
AB A symposium on synthesis of phosphoramidites of 2'-deoxyadenosine and  
2'-deoxyguanosine carrying a protected spermine moiety at N-6 and N-2  
positions resp. An approach to analyze properties of polyamino-  
oligonucleotides using their synthetic combinatorial libraries is  
described and discussed. A synthesis of a polyamino-oligonucleotide  
combinatorial library was carried out and the anal. of the library  
clearly  
showed that the presence of spermine moieties in  
oligodeoxyribonucleotides  
increases stability of their complexes.  
IT 153527-28-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of polyamino-oligonucleotides and their  
combinatorial libraries)  
RN 153527-28-7 HCAPLUS  
CN Inosine,  
5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-2-fluoro-6-O-[2-  
(4-nitrophenyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



Searched by John Dantzman

308-4488

IT 244639-84-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of polyamino-oligonucleotides and their  
combinatorial libraries)

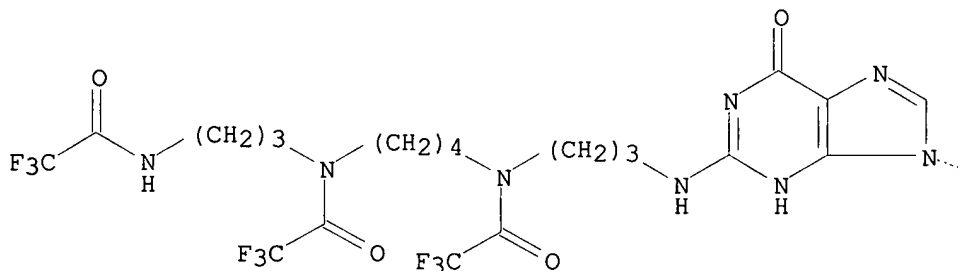
RN 244639-84-7 HCAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-N-[3-

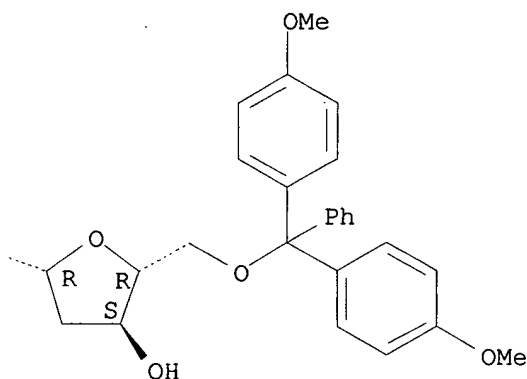
[(trifluoroacetyl)[4-[(trifluoroacetyl)[3-[(trifluoroacetyl)amino]propyl]a  
mino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



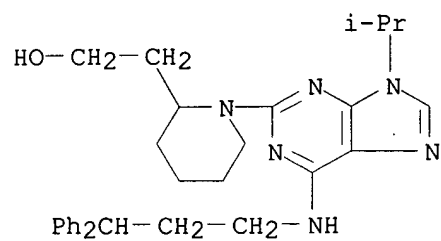
PAGE 1-B



=> d bib abs hitstr 144 8

L44 ANSWER 8 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1999:397364 HCAPLUS  
DN 131:228582  
TI Synthesis and application of functionally diverse 2,6,9-trisubstituted  
purine libraries as CDK inhibitors  
AU Chang, Young-Tae; Gray, Nathanael S.; Rosania, Gustavo R.; Sutherlin,  
Daniel P.; Kwon, Soojin; Norman, Thea C.; Sarohia, Radhika; Leost,  
Maryse;  
Meijer, Laurent; Schultz, Peter G.  
CS Lawrence Berkeley National Laboratory and the Howard Hughes Medical  
Institute, Department of Chemistry, University of California, Berkeley,  
CA, 94720, USA  
SO Chem. Biol. (1999) 6(6), 361-375  
CODEN: CBOLE2; ISSN: 1074-5521  
PB Current Biology Publications  
DT Journal  
LA English  
AB Purines constitute a structural class of protein ligands involved in  
mediating an astonishing array of metabolic processes and signal pathways  
in all living organisms. Synthesis of purine derivs. targeting specific  
purine-binding proteins in vivo could lead to versatile lead compds. for  
use as biol. probes or drug candidates. We synthesized several libraries  
of 2,6,9-trisubstituted purines using both soln.- and solid-phase chem.,  
and screened the compds. for inhibition of cyclin-dependent kinase (CDK)  
activity and human leukemic cell growth. Lead compds. were optimized by  
iterative synthesis based on structure-activity relationships (SARs), as  
well as anal. of several CDK-inhibitor cocrystal structures, to afford  
several interesting compds. including one of the most potent CDK  
inhibitors known to date. Unexpectedly, some compds. with similar CDK  
inhibitory activity arrested cellular proliferation at distinctly  
different phases of the cell cycle, and another inhibitor directly  
induced  
apoptosis, bypassing cell-cycle arrest. Some of these compds.  
selectively  
inhibited growth of cells derived from specific tumors.  
2,6,9-Trisubstituted purines have various and potent biol. activities,  
despite high concns. of competing endogenous purine ligands in living  
cells. Purine libraries constitute a versatile source of small mols.  
that  
affect distinct biochem. pathways mediating different cellular functions.  
IT 244030-64-6P  
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic  
preparation); BIOL (Biological study); PREP (Preparation)  
(synthesis and application of functionally diverse  
2,6,9-trisubstituted  
purine **libraries** as CDK inhibitors)  
RN 244030-64-6 HCAPLUS  
CN 2-Piperidineethanol,  
1-[6-[(3,3-diphenylpropyl)amino]-9-(1-methylethyl)-9H-  
purin-2-yl]- (9CI) (CA INDEX NAME)





=> d bib abs hitstr 144 9

L44 ANSWER 9 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:355787 HCAPLUS

DN 131:1474

TI Secreted proteins from human and murine cDNA libraries

IN Jacobs, Kenneth; McCoy, John M.; Lavallie, Edward R.; Collins-Racie, Lisa A.; Evans, Cheryl; Merberg, David; Treacy, Maurice; Agostino, Michael J.; Steininger, Robert J., II; Wong, Gordon G.; Clark, Hilary F.; Fechtel,

Kim

PA Genetics Institute, Inc., USA

SO PCT Int. Appl., 133 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

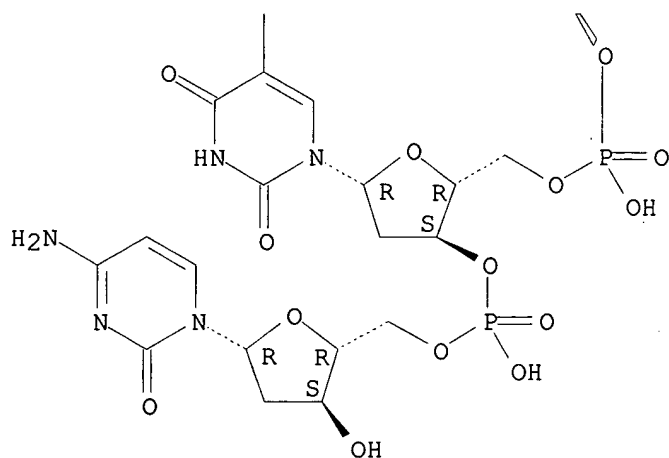
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9926961	A1	19990603	WO 1998-US25149	19981124
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9915363	A1	19990615	AU 1999-15363	19981124
PRAI	US 1997-66804		19971126		
	US 1998-197886		19981123		✓
	US 1997-PV66804		19971126		✓
	WO 1998-US25149		19981124		✓
AB	Novel polynucleotides and the proteins encoded thereby are disclosed. Nucleotide and amino acid sequences are reported for full-length clones isolated using methods which are selective for human cDNAs encoding secreted proteins. Nine clones were isolated from human fetal kidney and brain, and human adult lung, kidney, brain (corpus callosum), brain (substantia nigra), blood (chronic myelogenous leukemia K5), and testes cDNA libraries; a single clone is provided from a murine adult bone marrow (stromal cell line FCM-4) cDNA library. Recombinant prodn. of the secreted proteins and their mature forms can be achieved by std. techniques, and the proteins may have biol. activities (no data) useful for therapeutic applications.				
IT	73519-76-3P	RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (secreted proteins from human and murine cDNA libraries)			
RN	73519-76-3	HCAPLUS			
CN	Cytidine,	2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)			

Absolute stereochemistry.

Searched by John Dantzman . 308-4488



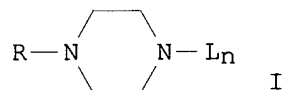
PAGE 2-A



=> d bib abs hitstr 144 10

L44 ANSWER 10 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1999:42619 HCAPLUS  
DN 130:110283  
TI Nucleobase heterocyclic combinatorialization  
IN Cook, Phillip Dan; An, Haoyun; Guinosso, Charles J.; Fraser, Allister S.;  
Kawasaki, Andrew M.  
PA Isis Pharmaceuticals, Inc., USA  
SO PCT Int. Appl., 129 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9900669	A1	19990107	WO 1998-US13666	19980630
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9881791	A1	19990119	AU 1998-81791	19980630
PRAI	US 1997-884873		19970630		
	WO 1998-US13666		19980630		
GI					



AB Mixts. of title compds. [I; Ln = alkyl, alkynyl, carbocycloalkyl, aryl, heteroaryl, etc.; R = C<sub>6</sub>H<sub>5</sub>, 2-pyrimidyl, 2-purinyl, etc.] are prepd., preferably in soln. phase from the reaction of a purine or pyrimidine heterocyclic scaffold with a set of related chem. substituents,

optionally through employment of a tether moiety, having antibacterial and other biol. activities per se and are articles of commerce. Thus, the title compd. I (Ln = 2-(4-BOC-1-piperazinyl-6-aminopyrimidyl); R = BOC) was prepd. from 2,4,6-trichloropyrimidine and I (R = H; Ln = BOC).

IT 219688-02-5P 219688-03-6P 219688-51-4P  
219688-84-3P 219688-88-7P 219688-92-3P

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);

SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(combinatorialization of nucleobase heterocyclic)

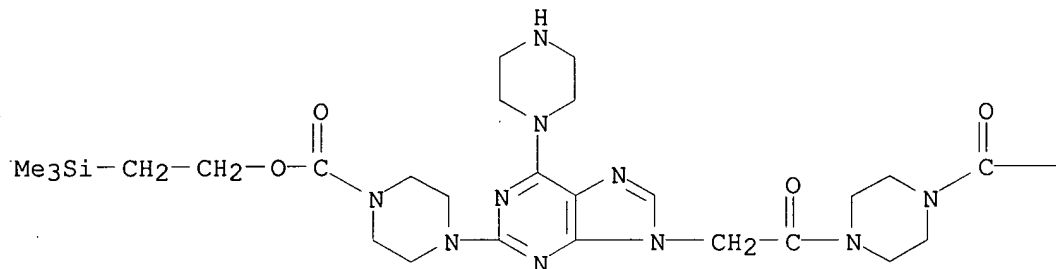
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CN 1-Piperazinecarboxylic acid, 4-[9-[2-[4-[(1,1-dimethylethoxy)carbonyl]-1-piperazinyl]-2-oxoethyl]-6-(1-piperazinyl)-9H-purin-2-yl]-,

Searched by John Dantzman 308-4488

2-(trimethylsilyl)ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



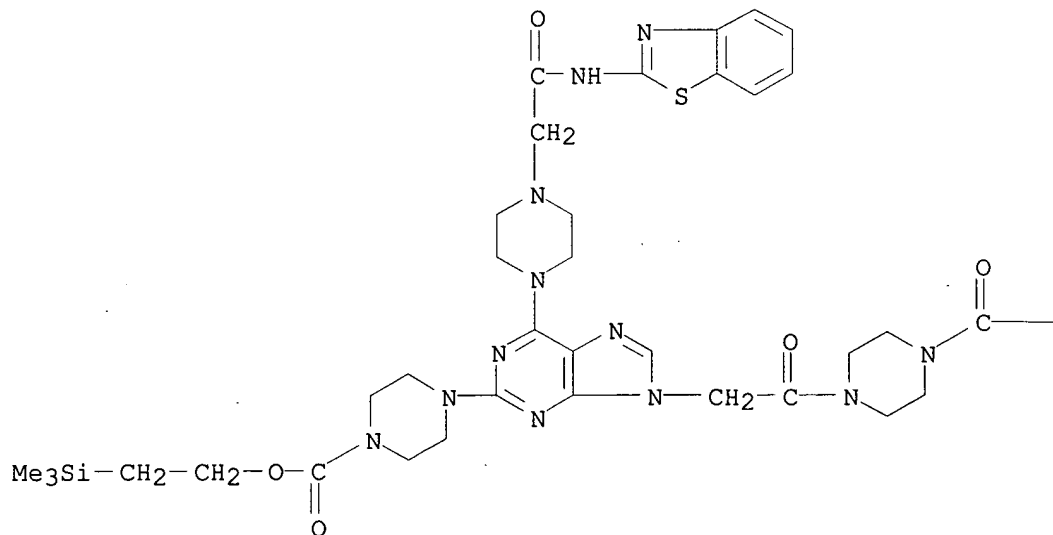
PAGE 1-B

— OBU-t

RN 219688-03-6 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[6-[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-9-[2-[4-[(1,1-dimethylethoxy)carbonyl]-1-piperazinyl]-2-oxoethyl]-9H-purin-2-yl]-, 2-(trimethylsilyl)ethyl ester (9CI) (CA INDEX NAME)

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Searched by John Dantzman

308-4488

PAGE 1-B

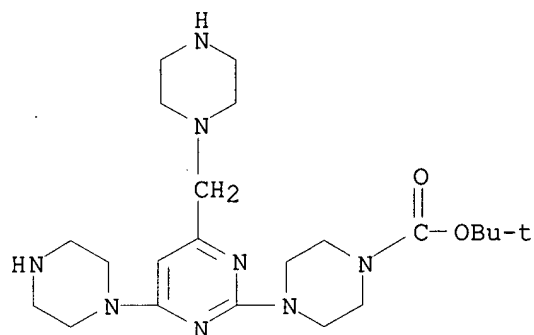
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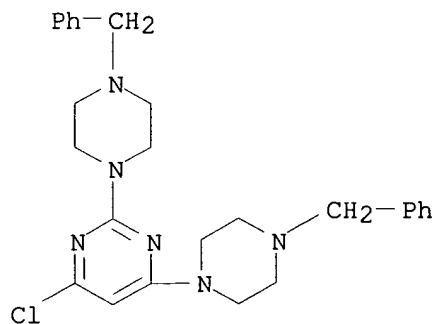
4-[4-(1-piperazinyl)-6-(1-piperazinylmethyl)-

2-pyrimidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 219688-84-3 HCAPLUS

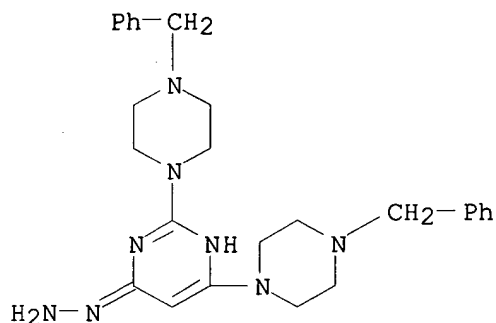
CN Pyrimidine, 4-chloro-2,6-bis[4-(phenylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



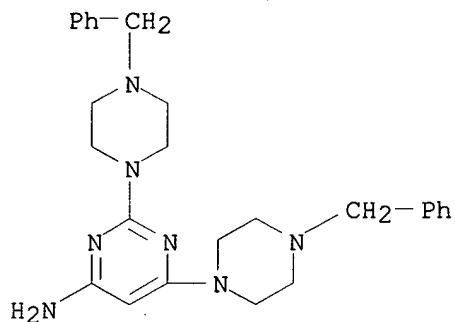
Searched by John Dantzman

308-4488

RN 219688-88-7 HCAPLUS  
CN 4(1H)-Pyrimidinone, 2,6-bis[4-(phenylmethyl)-1-piperazinyl]-, hydrazone  
(9CI) (CA INDEX NAME)



RN 219688-92-3 HCAPLUS  
CN 4-Pyrimidinamine, 2,6-bis[4-(phenylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)

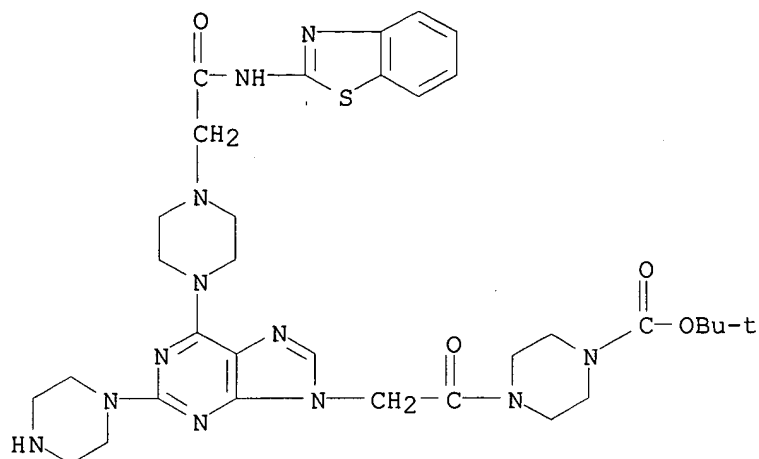


IT 219688-04-7P 219688-05-8P 219688-06-9P  
219688-07-0P 219688-08-1P 219688-09-2P  
219688-10-5P 219688-11-6P 219688-12-7P  
219688-13-8P 219688-14-9P 219688-56-9P  
219688-78-5P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(combinatorialization of nucleobase heterocyclic)

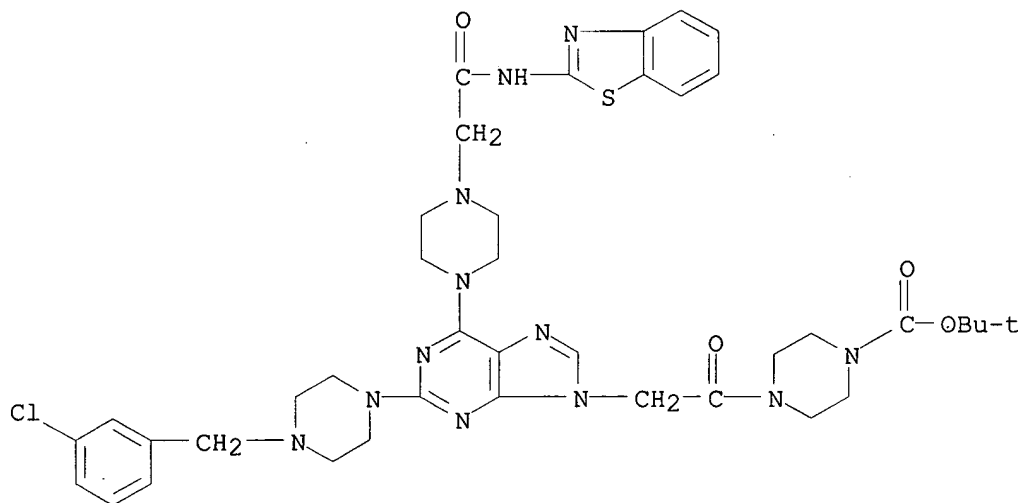
RN 219688-04-7 HCAPLUS  
CN 1-Piperazinecarboxylic acid, 4-[[[6-[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-2-(1-piperazinyl)-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)





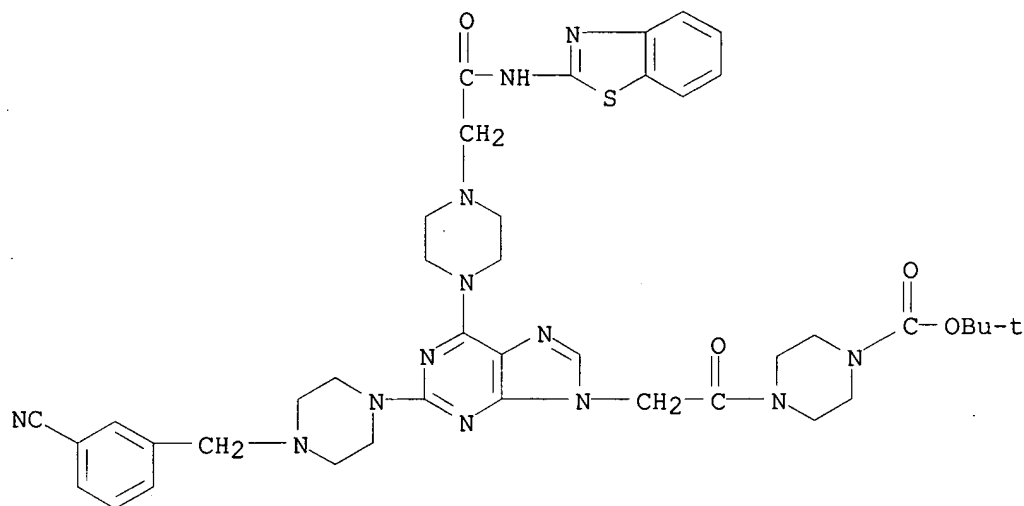
RN 219688-05-8 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[6-[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-2-[4-[(3-chlorophenyl)methyl]-1-piperazinyl]-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



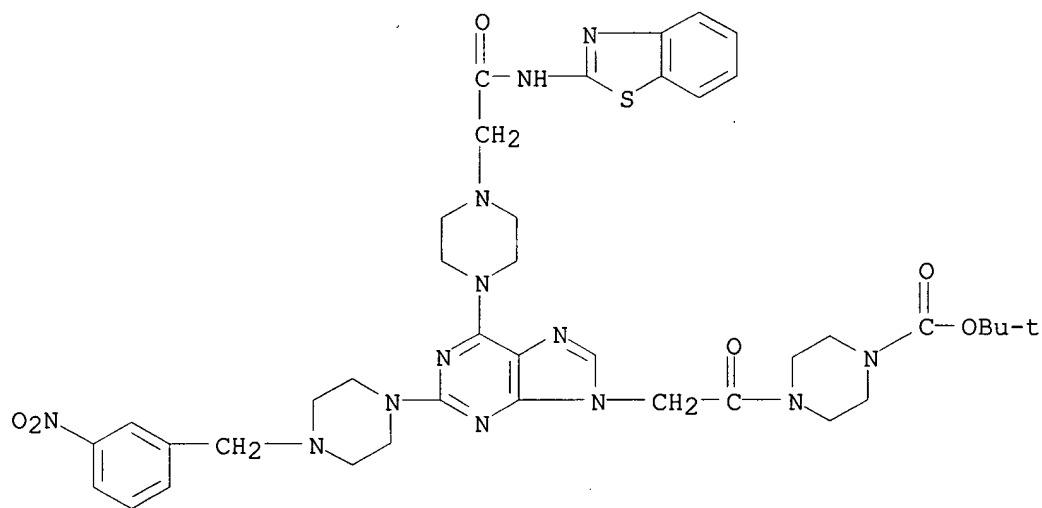
RN 219688-06-9 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[6-[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-2-[4-[(3-cyanophenyl)methyl]-1-piperazinyl]-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



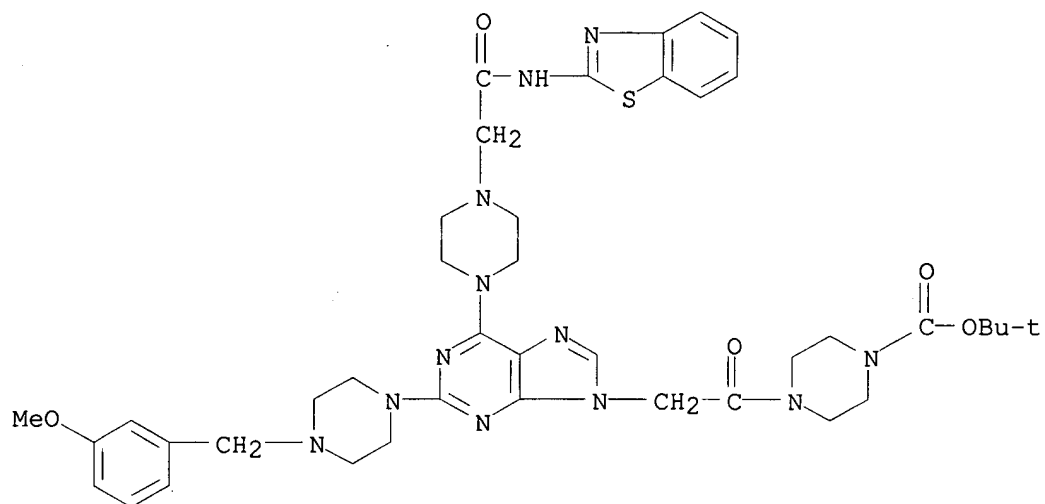
RN 219688-07-0 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[6-[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-2-[4-[(3-nitrophenyl)methyl]-1-piperazinyl]-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



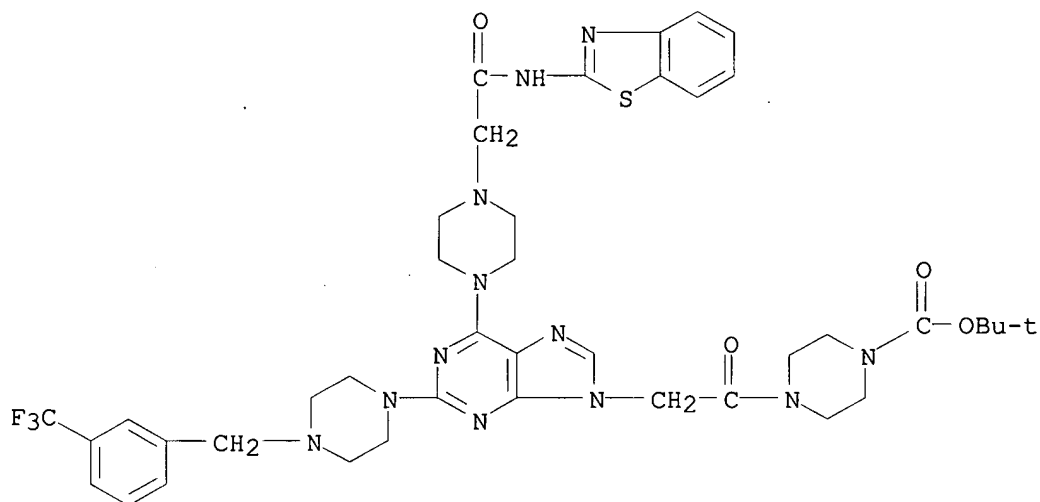
RN 219688-08-1 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[6-[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-2-[4-[(3-methoxyphenyl)methyl]-1-piperazinyl]-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 219688-09-2 HCAPLUS

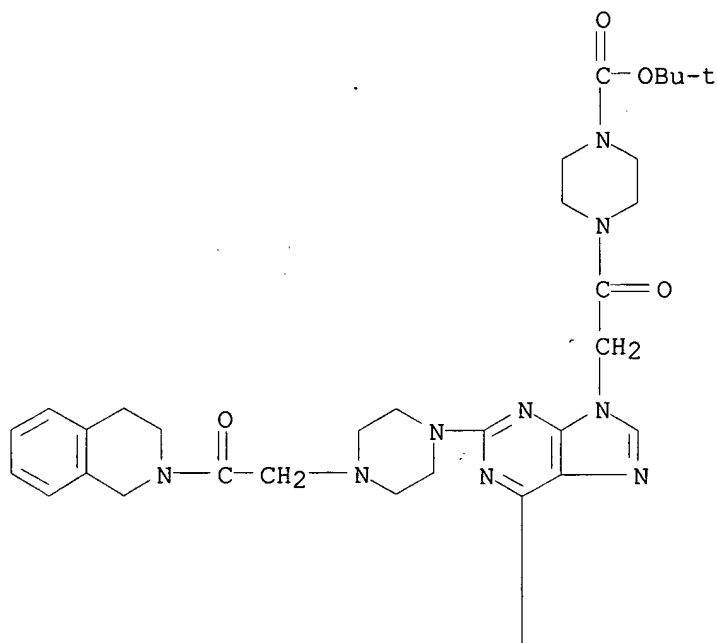
CN 1-Piperazinecarboxylic acid, 4-[[6-[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-2-[4-[[3-(trifluoromethyl)phenyl]methyl]-1-piperazinyl]-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



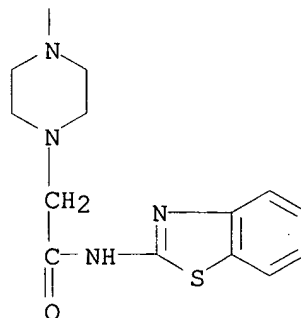
RN 219688-10-5 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[6-[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-2-[4-[2-(3,4-dihydro-2(1H)-isoquinolinyl)-2-oxoethyl]-1-piperazinyl]-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

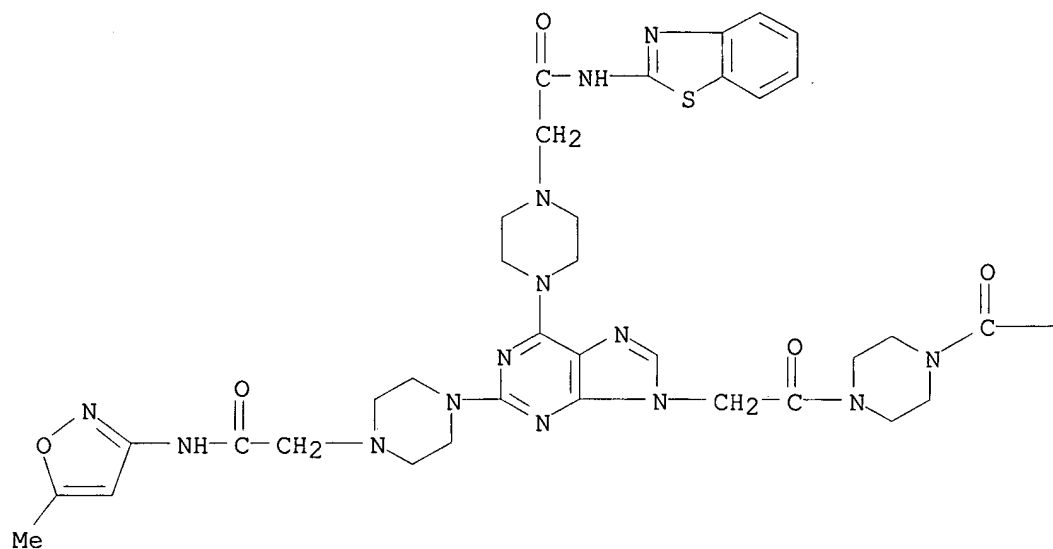


PAGE 2-A



RN 219688-11-6 HCAPLUS  
 CN 1-Piperazinecarboxylic acid, 4-[[6-[[4-[[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-2-[4-[2-[(5-methyl-3-isoxazolyl)amino]-2-oxoethyl]-1-piperazinyl]-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



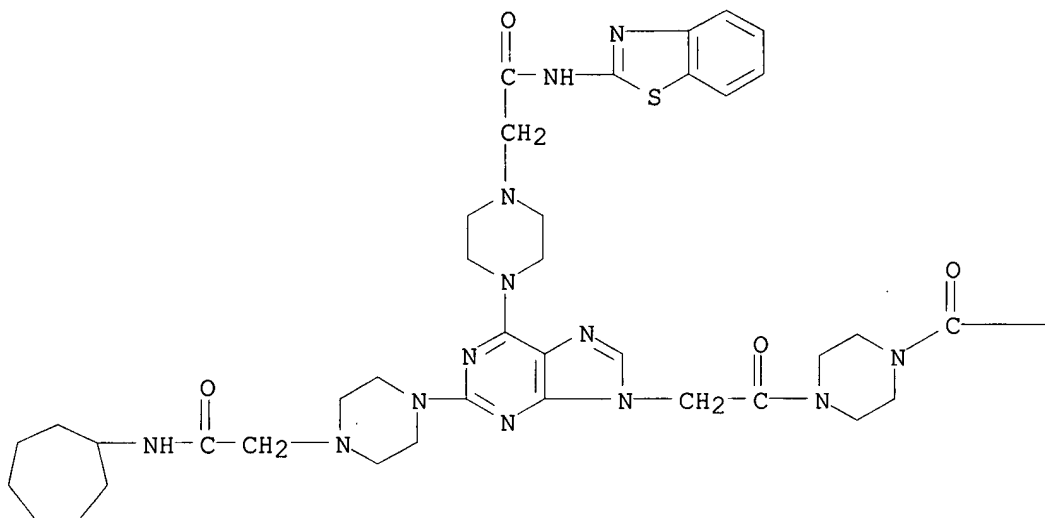
PAGE 1-B

— OBU-t

RN 219688-12-7 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[6-[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-2-[4-[2-(cycloheptylamino)-2-oxoethyl]-1-piperazinyl]-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



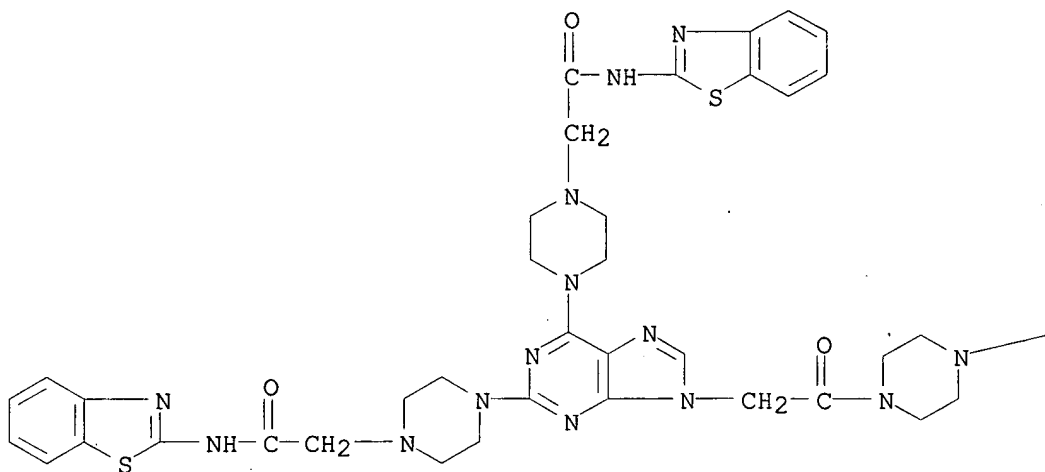
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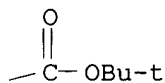
RN 219688-13-8 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[2,6-bis[4-[2-(2-benzothiazolylamino)-2-oxoethyl]-1-piperazinyl]-9H-purin-9-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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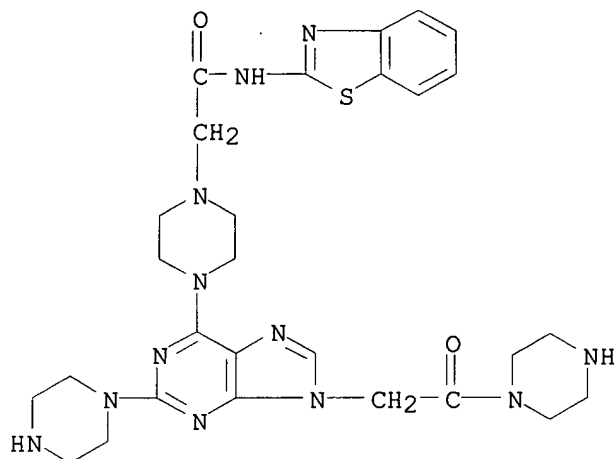


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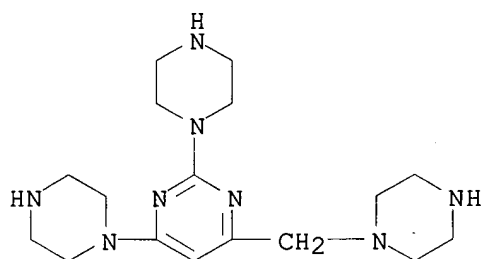
RN 219688-14-9 HCAPLUS

CN 1-Piperazineacetamide, N-2-benzothiazolyl-4-[9-[2-oxo-2-(1-piperazinyl)ethyl]-2-(1-piperazinyl)-9H-purin-6-yl]- (9CI) (CA INDEX NAME)



RN 219688-56-9 HCAPLUS

CN Pyrimidine, 2,4-di-1-piperazinyl-6-(1-piperazinylmethyl)-,  
hexahydrochloride (9CI) (CA INDEX NAME)

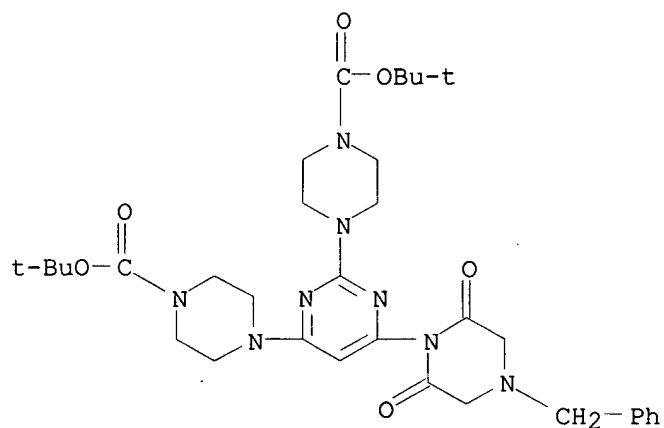


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RN 219688-78-5 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4,4'-[6-[2,6-dioxo-4-(phenylmethyl)-1-piperazinyl]-2,4-pyrimidinediyl]bis-, bis(1,1-dimethylethyl) ester (9CI)  
(CA INDEX NAME)



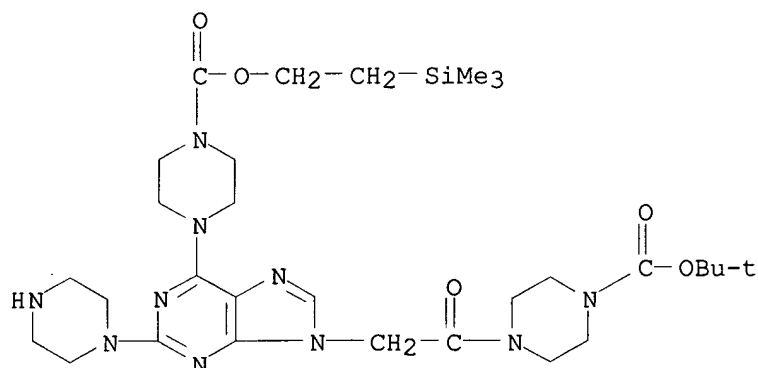


IT 219687-96-4P 219687-98-6P 219688-00-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(combinatorialization of nucleobase heterocyclic)

RN 219687-96-4 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[9-[2-[4-[(1,1-dimethylethoxy)carbonyl]-1-piperazinyl]-2-oxoethyl]-2-(1-piperazinyl)-9H-purin-6-yl]-, 2-(trimethylsilyl)ethyl ester (9CI) (CA INDEX NAME)



RN 219687-98-6 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[(2,6-di-1-piperazinyl-9H-purin-9-yl)acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



=> d bib abs hitstr 144 12

L44 ANSWER 12 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1998:164791 HCAPLUS

DN 129:260801

TI Synthesis and hybridization analysis of a small library of peptide oligonucleotide conjugates

AU Harrison, Joseph G.; Balasubramanian, Shankar

CS University Chemical Laboratory, Cambridge University, Cambridge, CB2 1

EW,

UK

SO Nucleic Acids Res. (1998), 26(13), 3136-3145

CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

DT Journal

LA English

AB A small library of 49 peptide-oligonucleotide conjugates were synthesized to explore the influence of various peptide side chains on the hybridization properties of the DNA. An invariant 8mer oligonucleotide was coupled to a peptide portion that contained a five residue variable region composed of the cationic amino acids lysine, ornithine, histidine and arginine, the hydrophobic amino acid tryptophan, and alanine as a spacer. Melting temp. anal. indicated that Tm depended principally on

the

no. of cationic residues. The free energies of binding for polycationic peptide-oligonucleotides were enhanced compared with the unmodified 8mer. The origin of this stabilizing effect was found to be derived from a more exothermic enthalpic term. Improvement in .DELTA.GvH was found to depend on the presence of pos. charge and also the exact identity of the

cationic

amino acid, with the polyarginine peptide giving the most favorable .DELTA.GvH value and the most exothermic .DELTA.HvH. Further exploration suggested that the cationic peptide fragments interacted mainly with single-stranded rather than duplex DNA. A study of pH dependence showed that the polyhistidine conjugate was particularly sensitive to pH changes near neutrality, as indicated by a significant rise in Tm from 19.5.degree. at pH 8.0 to 28.5.degree. at pH 6.0.

IT 212901-54-7P 212901-55-8P 212901-56-9P

212901-57-0P 212901-58-1P 212901-59-2P

212901-60-5P 212901-65-0P 212901-68-3P

212901-72-9P 212901-78-5P 212901-85-4P

212901-86-5P 212901-87-6P 212901-89-8P

212901-91-2P 212902-04-0P 212902-05-1P

212902-06-2P 212902-21-1P 212902-66-4P

212902-81-3P 212903-04-3P 212903-37-2P

212903-63-4P 212903-77-0P 212903-98-5P

212904-24-0P 212904-57-9P 212904-93-3P

212905-00-5P 212953-87-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and hybridization anal. of small peptide-oligonucleotide conjugate **combinatorial library**)

RN 212901-54-7 HCAPLUS

CN DNA, d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-G), complex with 2'-deoxyadenyl-yl-(3'.fwdarw.5')-2'-deoxyadenyl-yl-(3'.fwdarw.5')-thymidyl-yl-(3'.fwdarw.5')-

2'-deoxyguanylyl-yl-(3'.fwdarw.5')-thymidyl-yl-(3'.fwdarw.5')-2'-deoxyguanylyl-yl-

(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidine (1:1) (9CI) (CA INDEX NAME)

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CRN 212780-26-2

CMF Unspecified

CCI MAN

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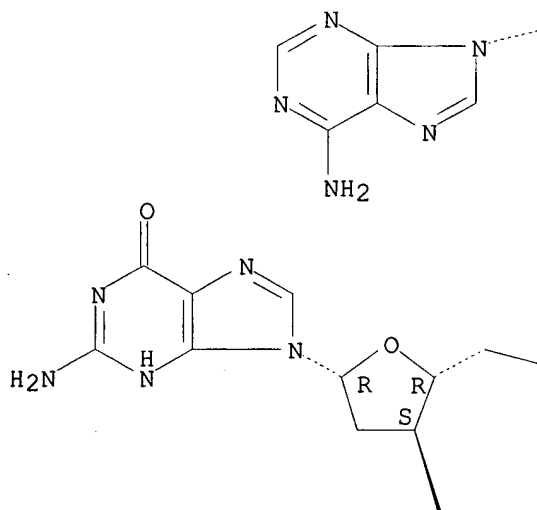
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CRN 212759-70-1

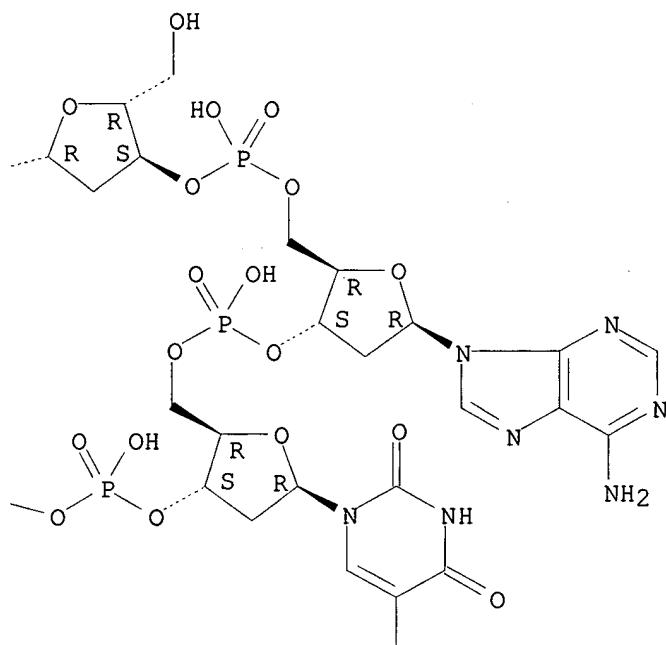
CMF C80 H100 N31 O46 P7

Absolute stereochemistry.

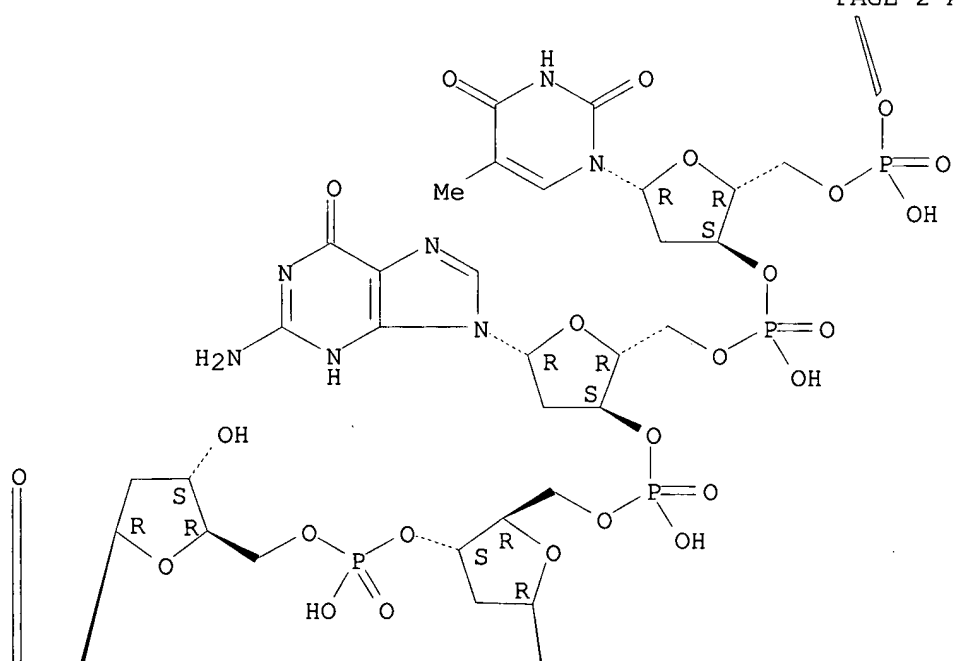
PAGE 1-A



PAGE 1-B



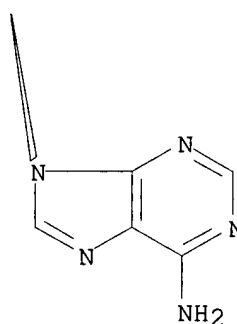
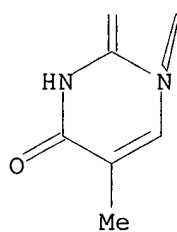
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PAGE 2-B



PAGE 3-A

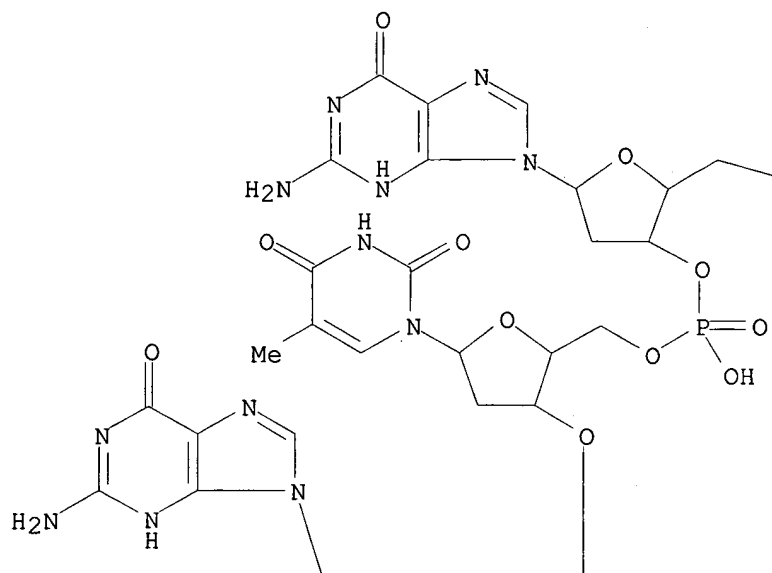


RN 212901-55-8 HCAPLUS  
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 nyl]cyclohexyl]methyl]-3-pyrrolidiny]]-L-cysteiny]]-L-alanyl-L-lysyl-L-alanyl-L-lysyl-L-alanyl-, compd. with DNA  
 d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-  
 G) (1:1) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 212780-26-2  
 CMF Unspecified  
 CCI MAN

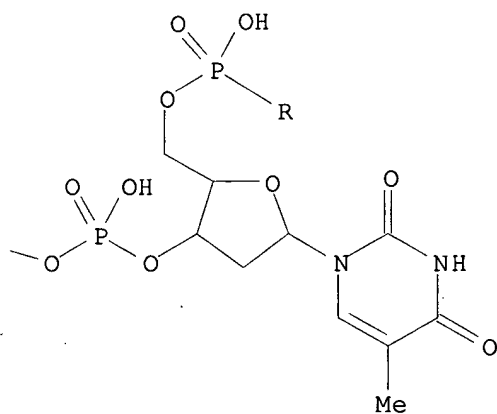
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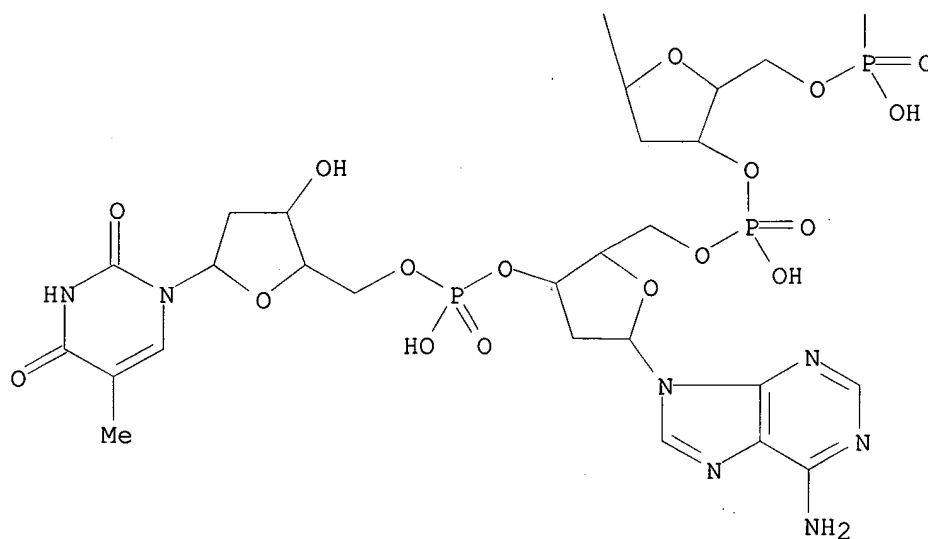
PAGE 1-A



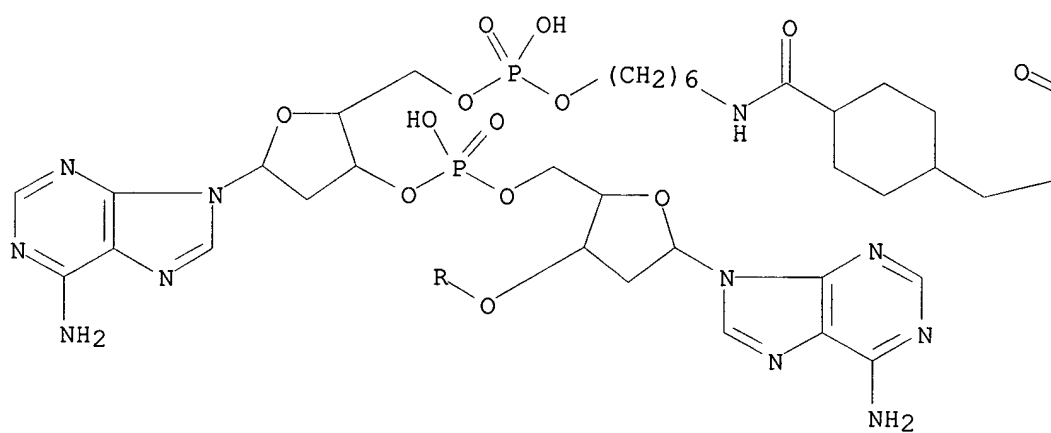
PAGE 1-B



PAGE 2-A

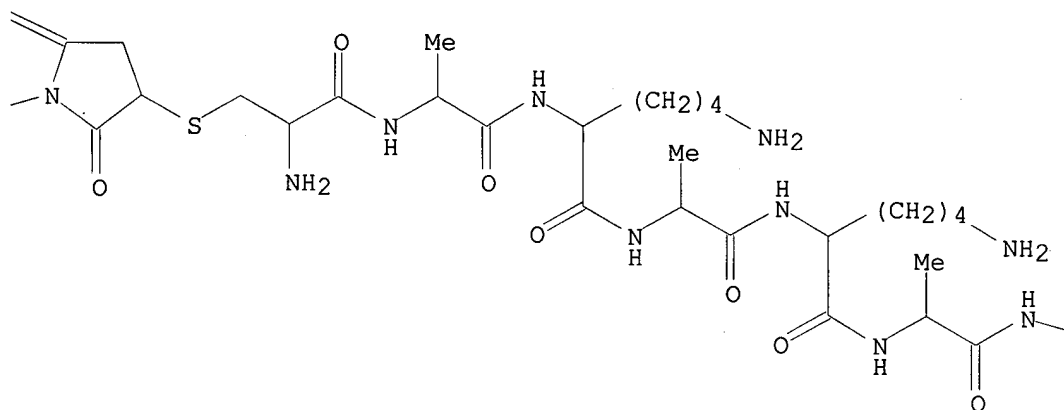


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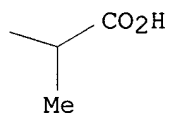




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PAGE 3-C



RN 212901-56-9 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo-  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny]L-alanyl-L-lysyl-L-  
lysyl-L-lysyl-L-alanyl-, compd. with DNA d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-  
G) (1:1) (9CI) (CA INDEX NAME)

CM 1

Searched by John Dantzman

308-4488

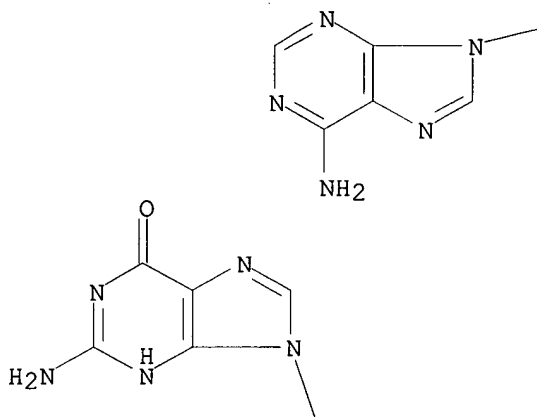
CRN 212780-26-2  
CMF Unspecified  
CCI MAN

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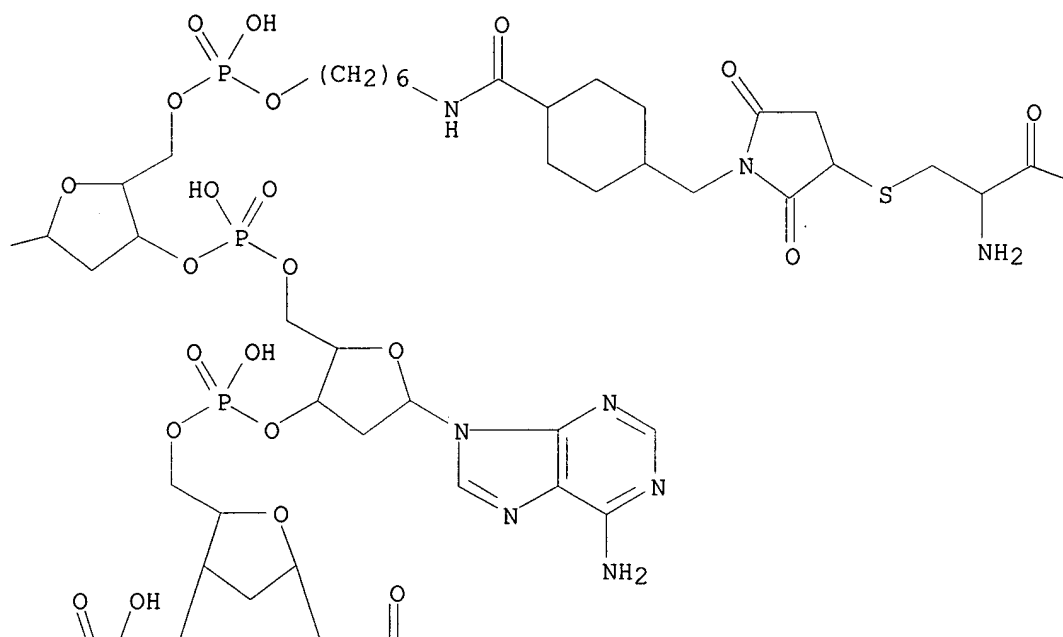
CM 2

CRN 212772-84-4  
CMF C128 H185 N43 O60 P8 S  
CDES \*

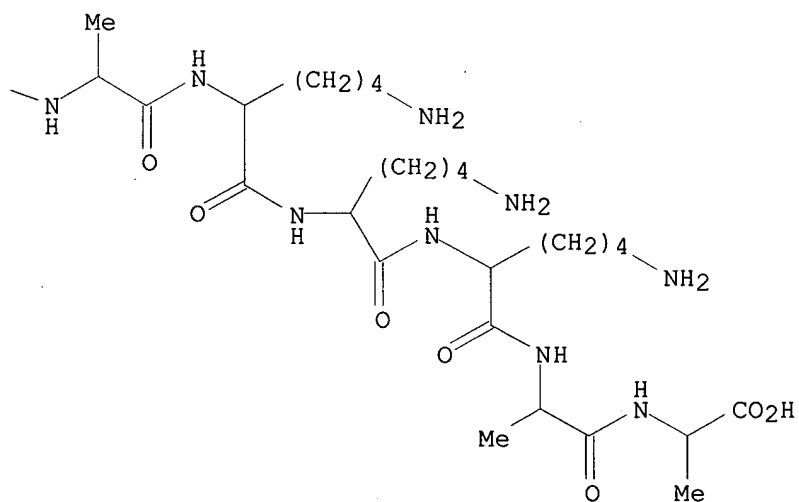
PAGE 1-A



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PAGE 1-C





RN 212901-57-0 HCAPLUS

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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidiny]l]-L-cysteiny]l]-L-lysyl-L-alanyl-L-  
lysyl-L-alanyl-L-lysyl-, compd. with DNA d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-  
G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

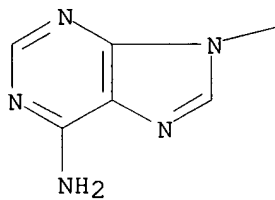
CM 2

CRN 212772-85-5

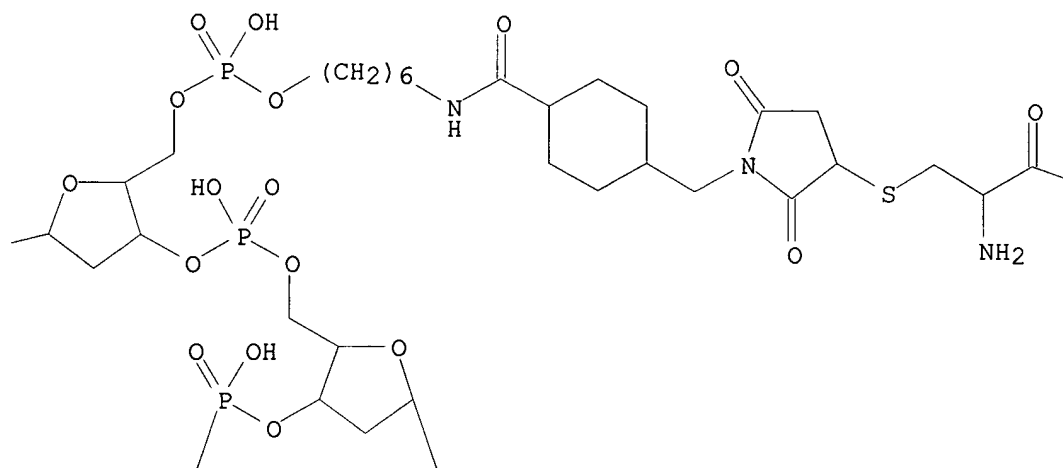
CMF C128 H185 N43 O60 P8 S

CDES \*

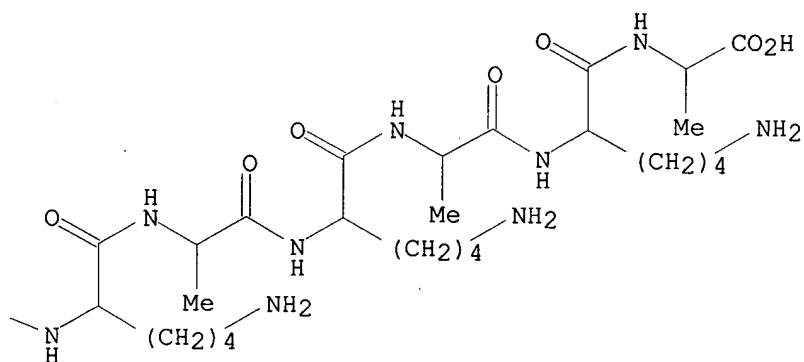
PAGE 1-A



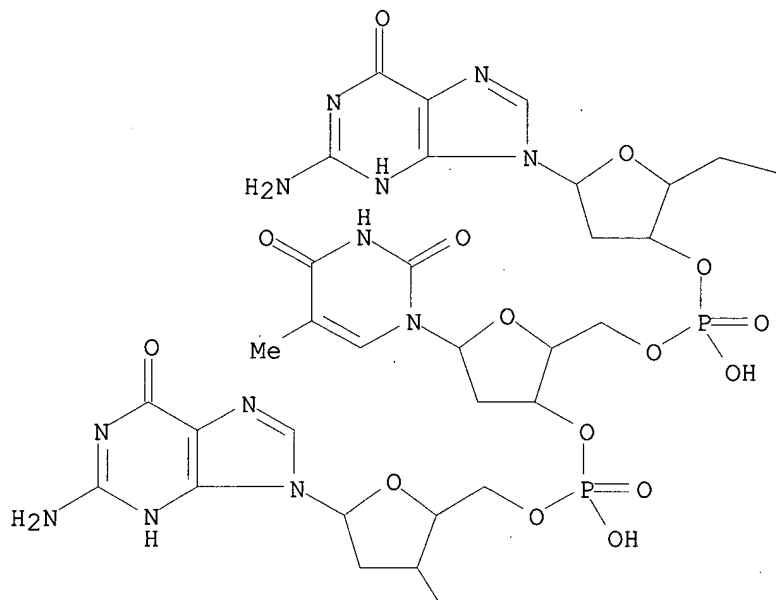
PAGE 1-B



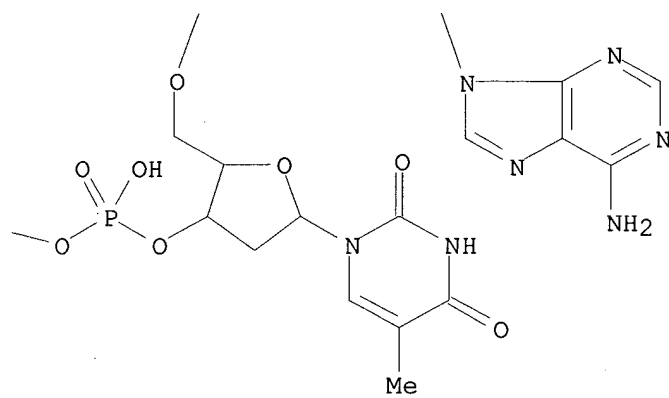
PAGE 1-C



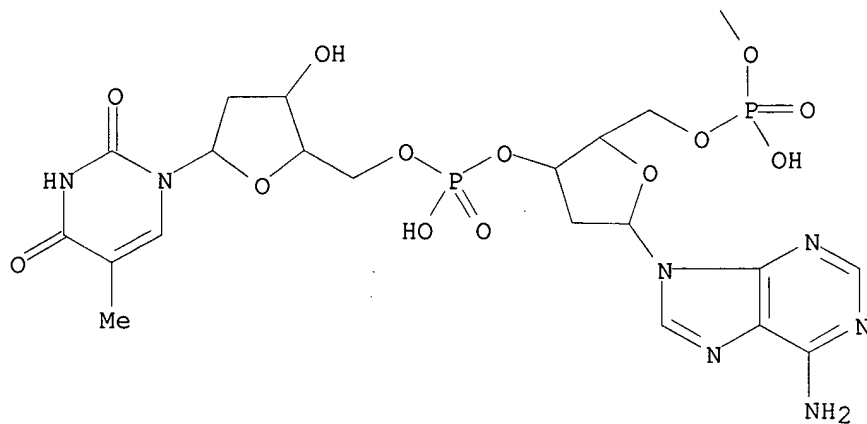
PAGE 2-A



PAGE 2-B



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RN 212901-58-1 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-  
deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-  
(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-alanyl-L-lysyl-L-  
lysyl-L-lysyl-L-lysyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-G)

(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

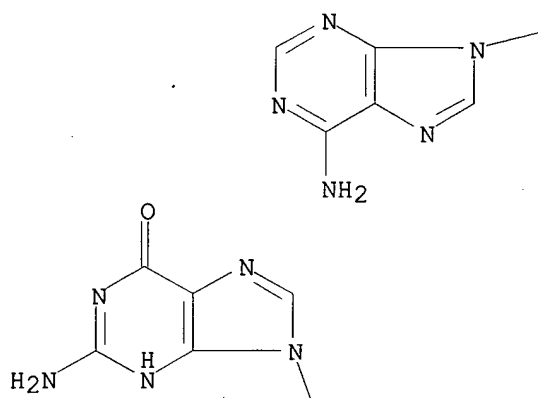
CRN 212772-86-6

CMF C131 H192 N44 O60 P8 S

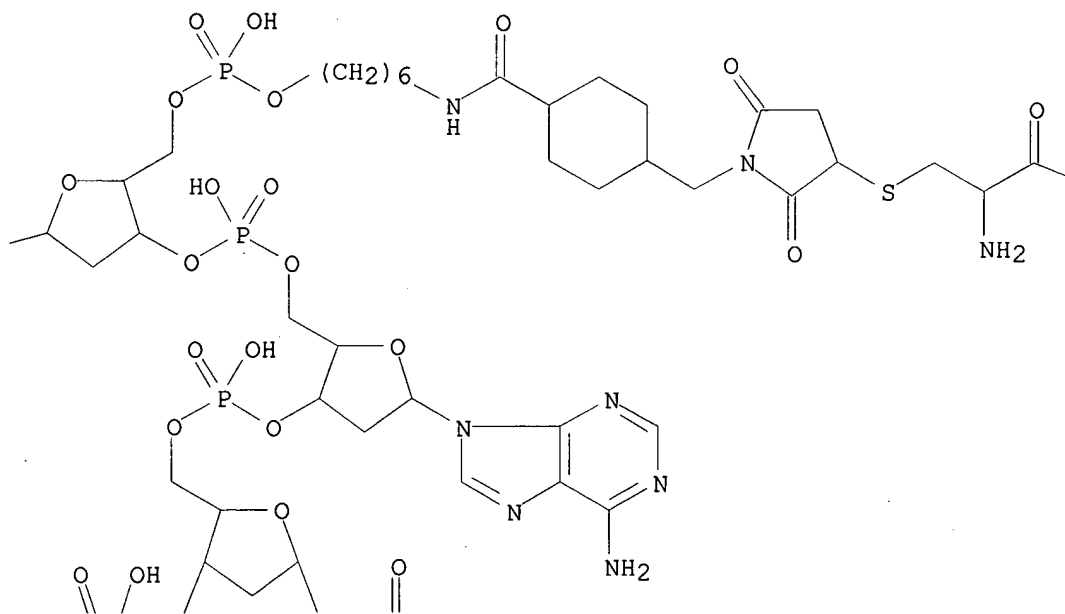
CDES \*



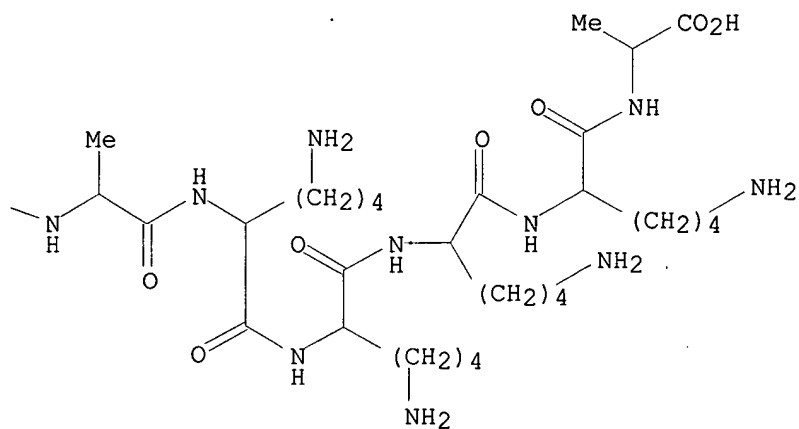
PAGE 1-A



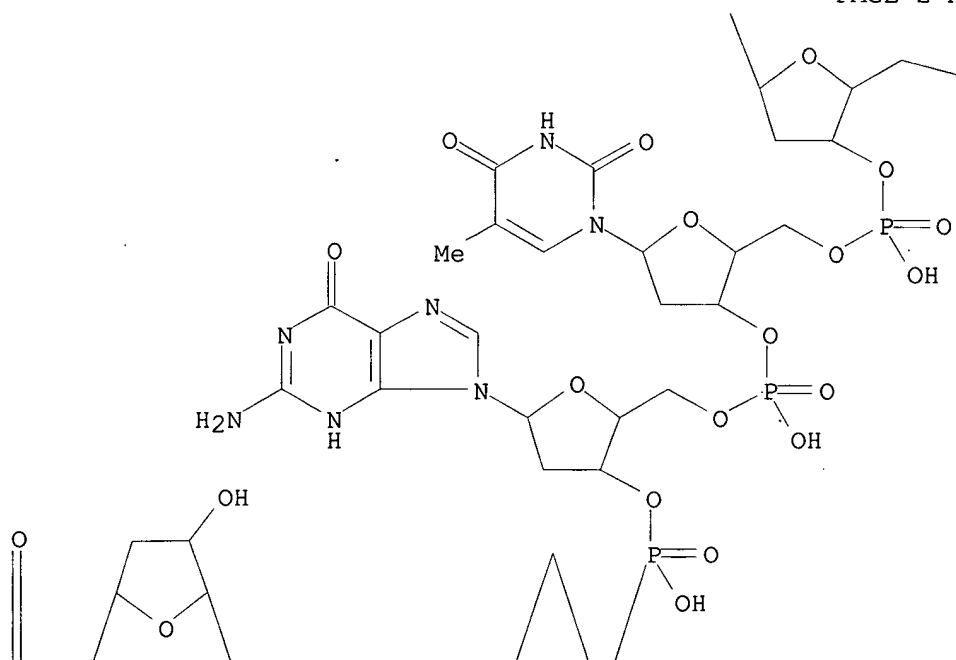
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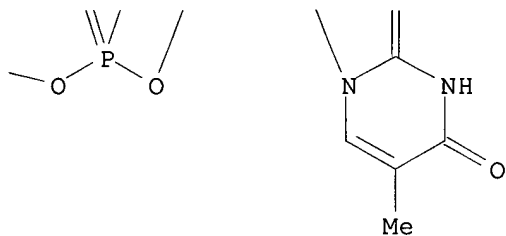
PAGE 1-C



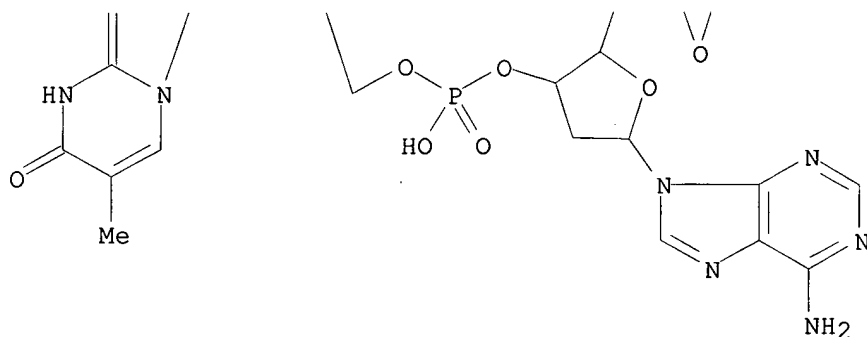
PAGE 2-A



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RN 212901-59-2 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinylyl-L-lysyl-L-lysyl-L-  
alanyl-L-lysyl-L-lysyl-, compd. with DNA d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-  
G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

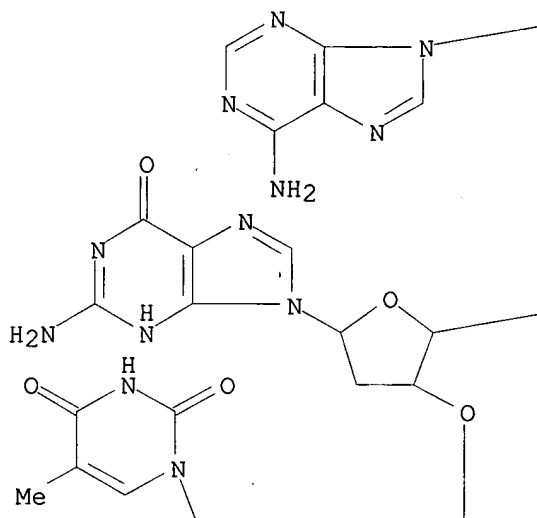
CM 2

CRN 212772-87-7

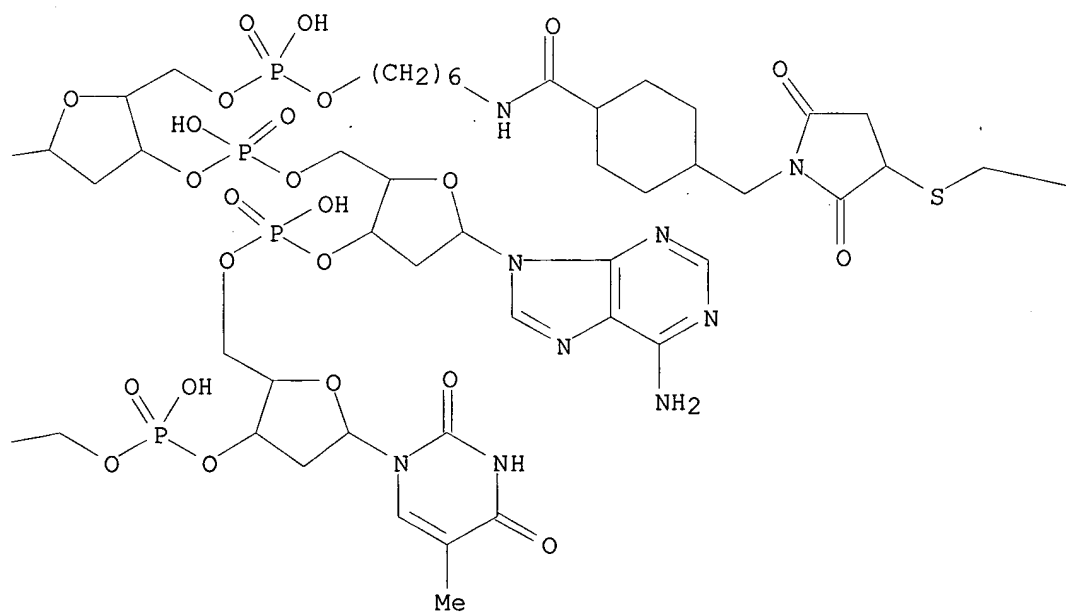
CMF C131 H192 N44 O60 P8 S

CDES \*

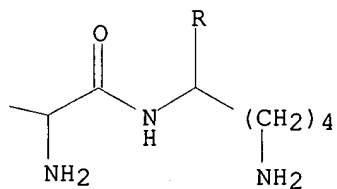
PAGE 1-A



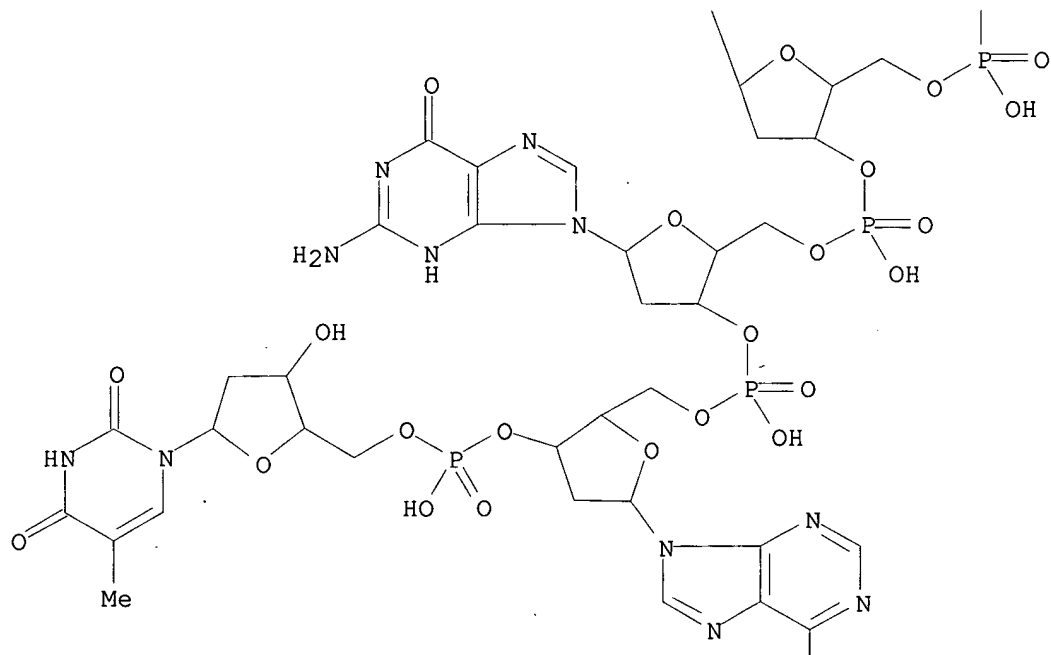
PAGE 1-B



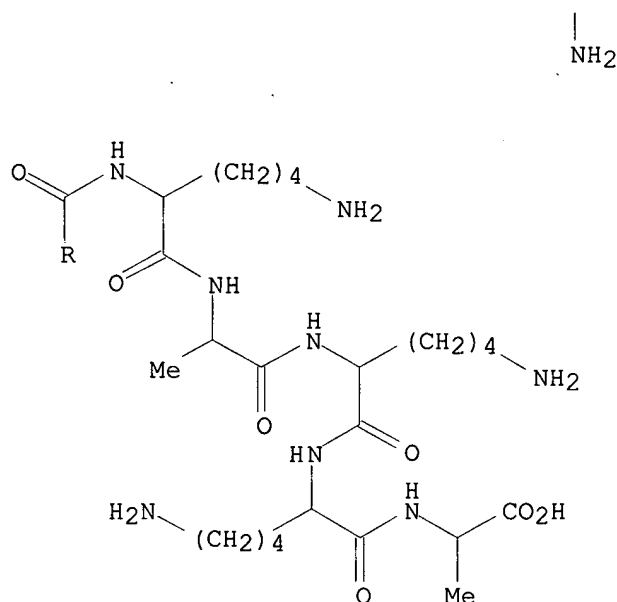
PAGE 1-C



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RN 212901-60-5 HCAPLUS

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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo

nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny]L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl-, compd. with DNA d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-G)

(1:1)

(9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

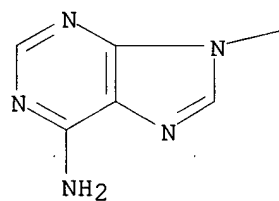
CM 2

CRN 212772-88-8

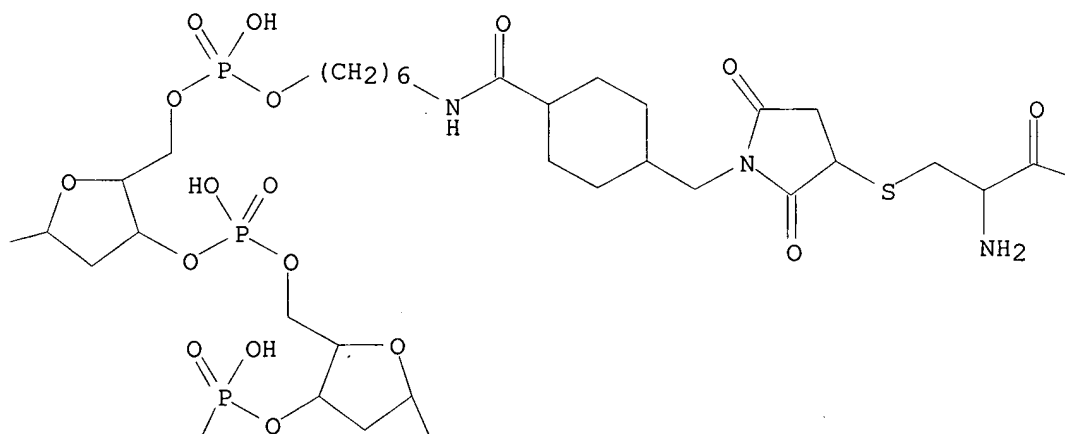
CMF C134 H199 N45 O60 P8 S

CDES \*

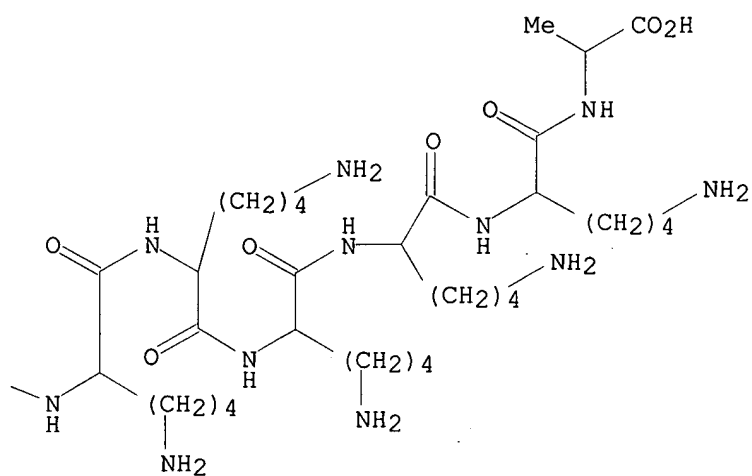
PAGE 1-A



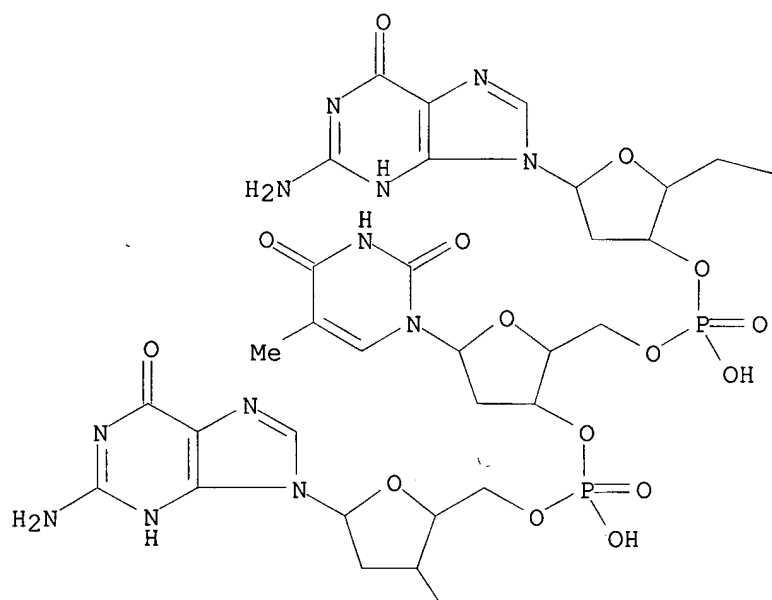
PAGE 1-B



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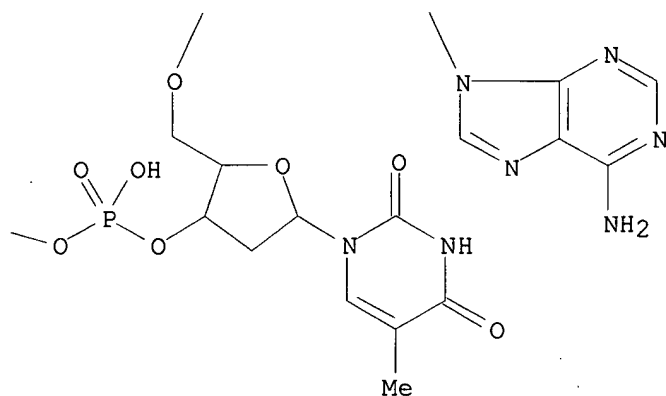


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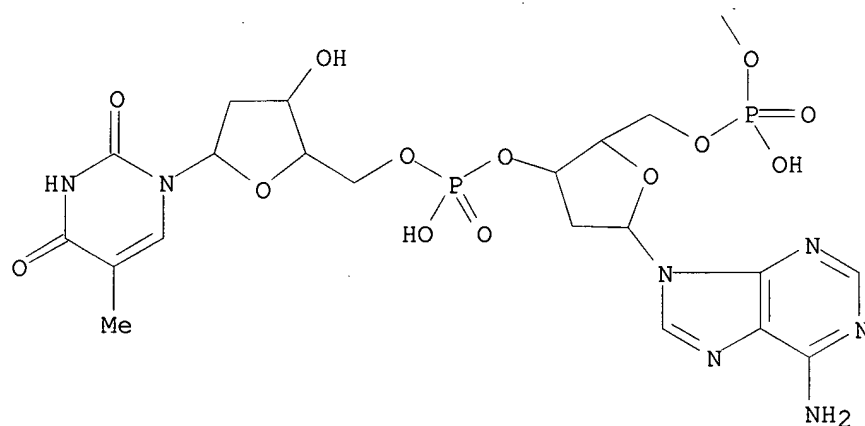




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RN 212901-65-0 HCAPLUS

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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-lysyl-L-lysyl-L-  
tryptophyl-L-lysyl-L-lysyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Searched by John Dantzman

308-4488

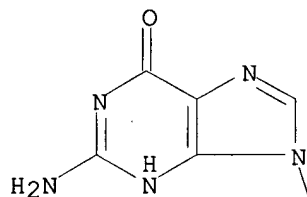
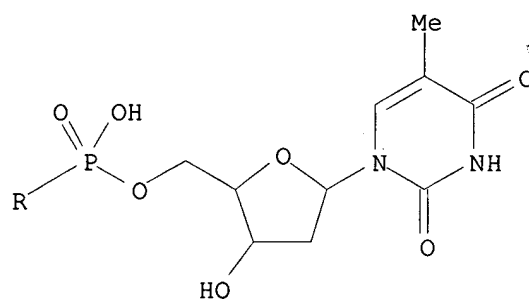
CM 2

CRN 212772-89-9

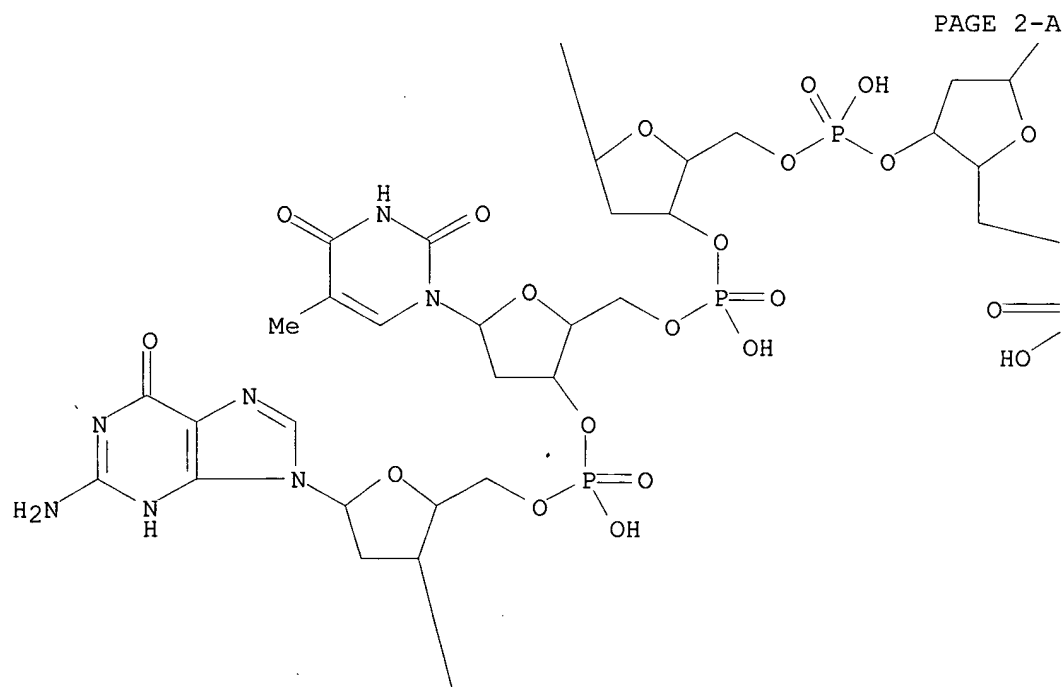
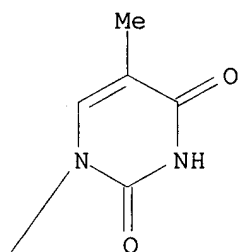
CMF C139 H197 N45 O60 P8 S

CDES \*

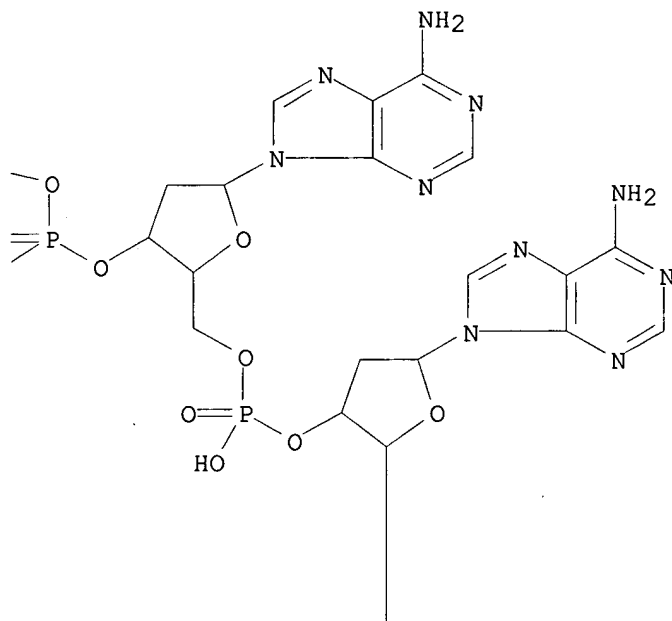
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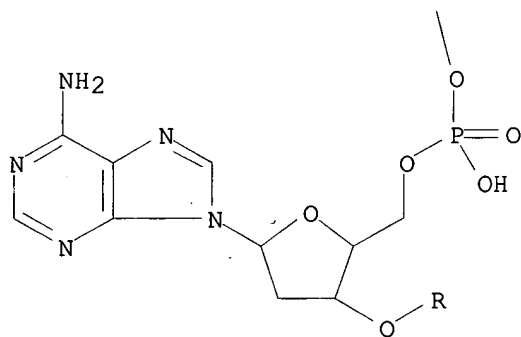
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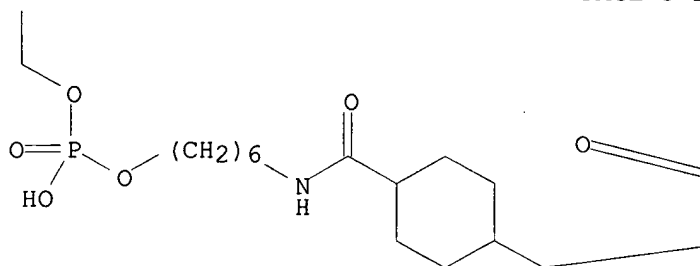
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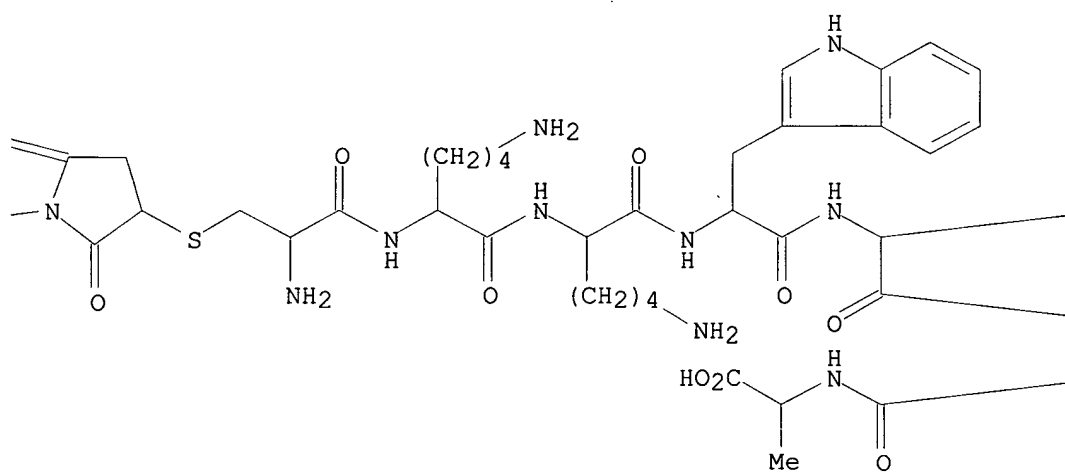
PAGE 3-A



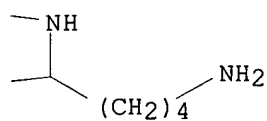
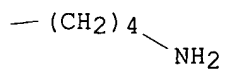
PAGE 3-B



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PAGE 3-D



RN 212901-68-3 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny-L-alanyl-L-ornithyl-L-  
ornithyl-L-alanyl-L-alanyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

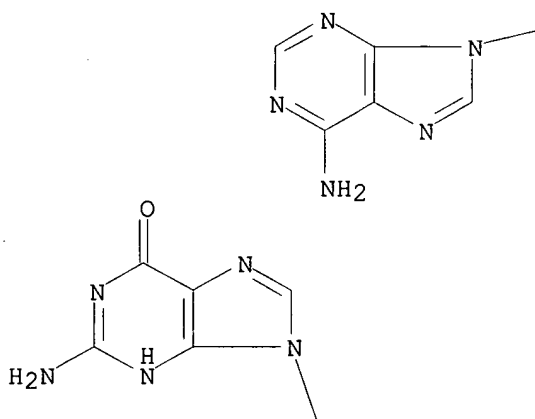
CM 2

CRN 212772-91-3

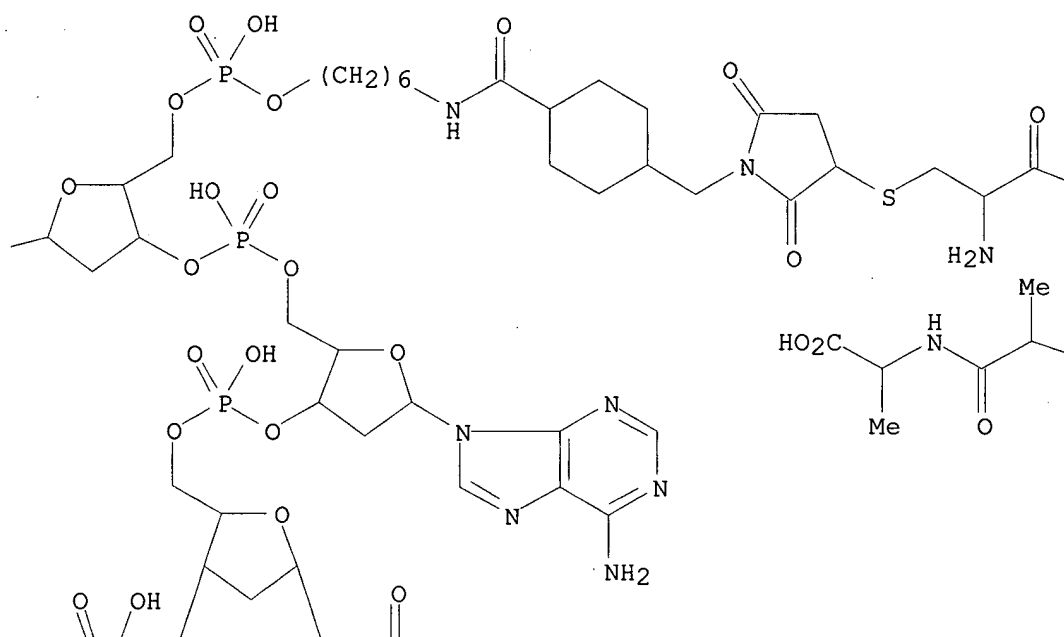
CMF C123 H174 N42 O60 P8 S

CDES \*

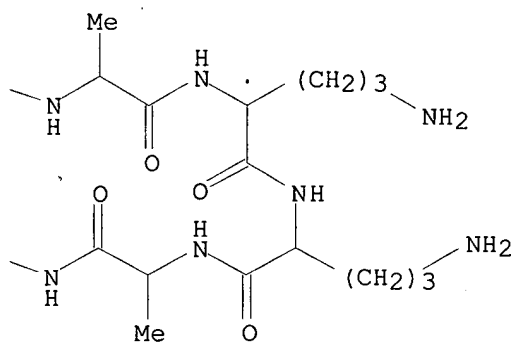
PAGE 1-A



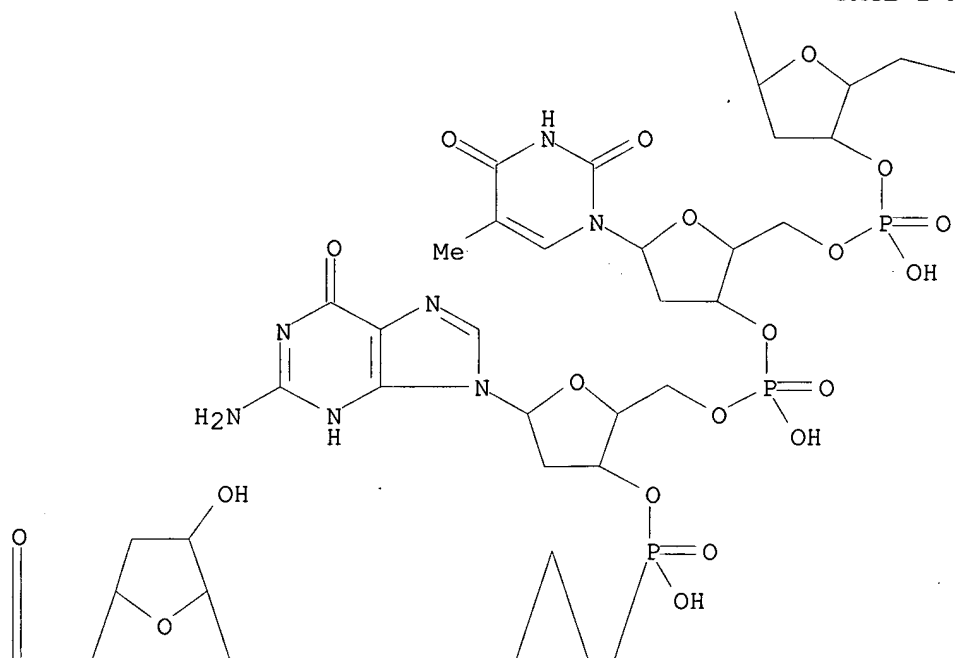
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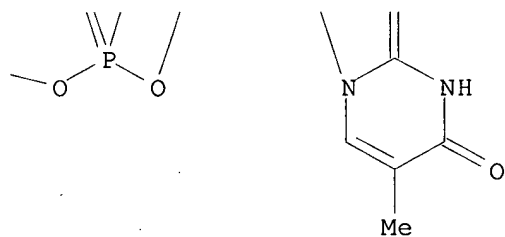
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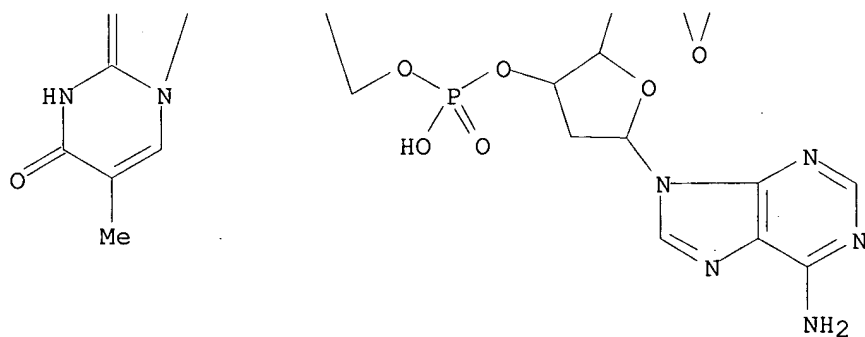
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RN 212901-72-9 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny-L-alanyl-L-ornithyl-L-  
alanyl-L-ornithyl-L-alanyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

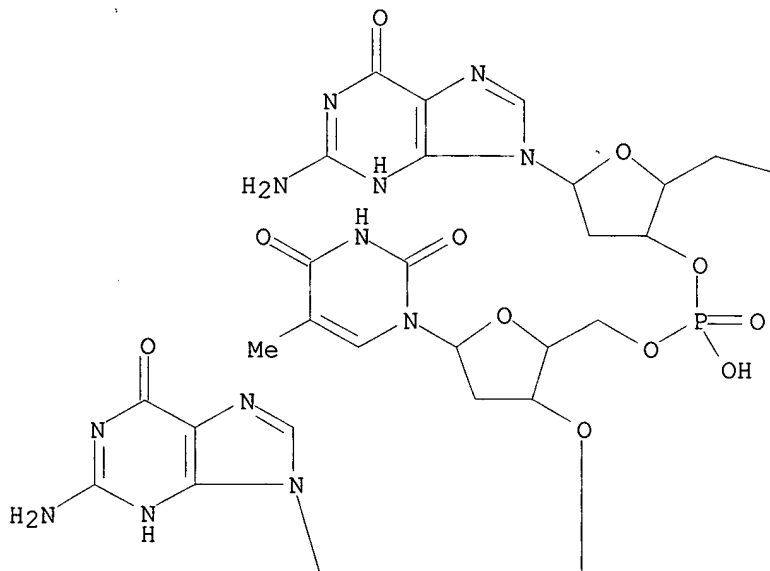
CM 2

CRN 212772-92-4

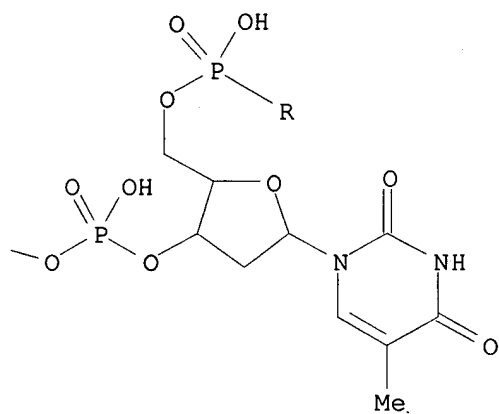
CMF C123 H174 N42 O60 P8 S

CDES \*

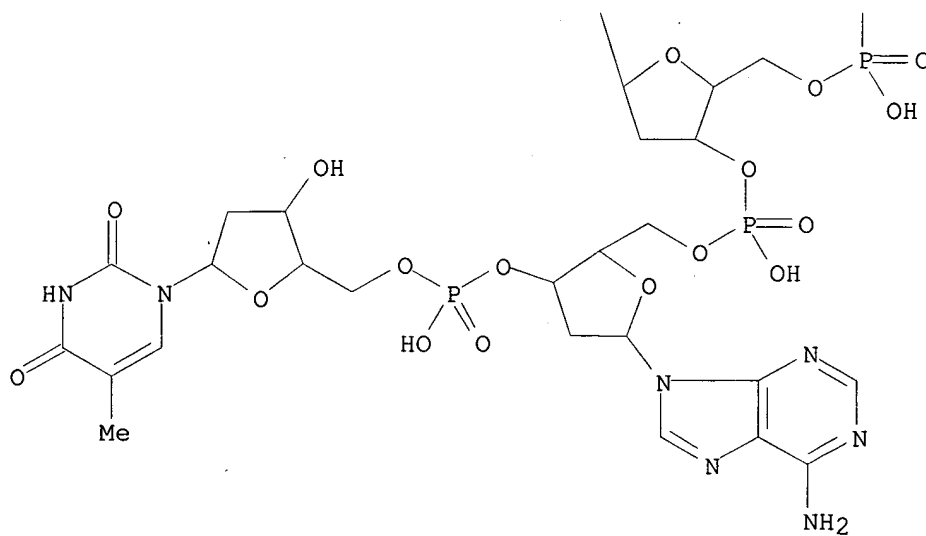
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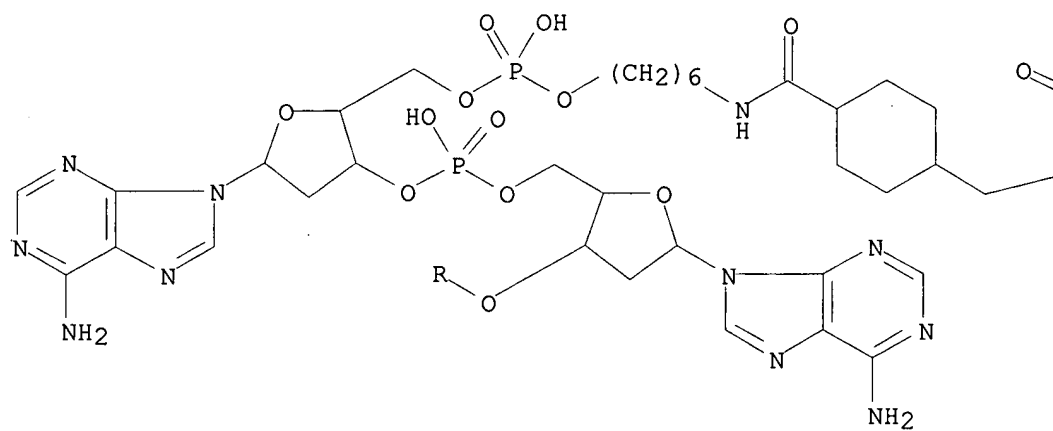
PAGE 1-B



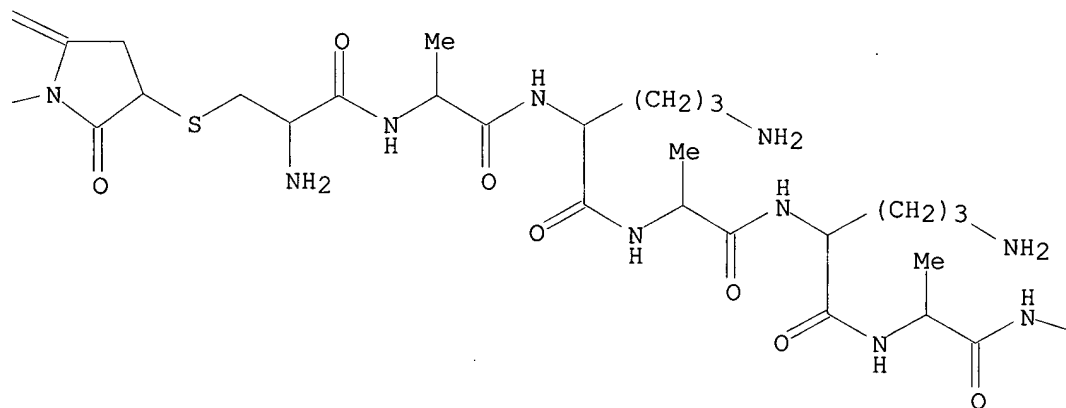
PAGE 2-A



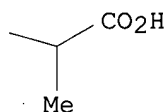
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PAGE 3-C



RN 212901-78-5 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny-L-alanyl-L-ornithyl-L-  
ornithyl-L-ornithyl-L-alanyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-  
T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

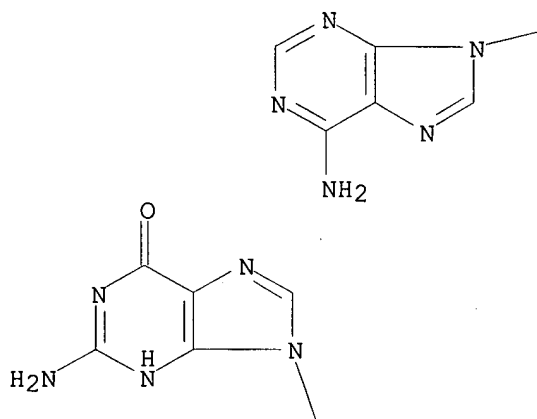
CM 2

CRN 212772-93-5

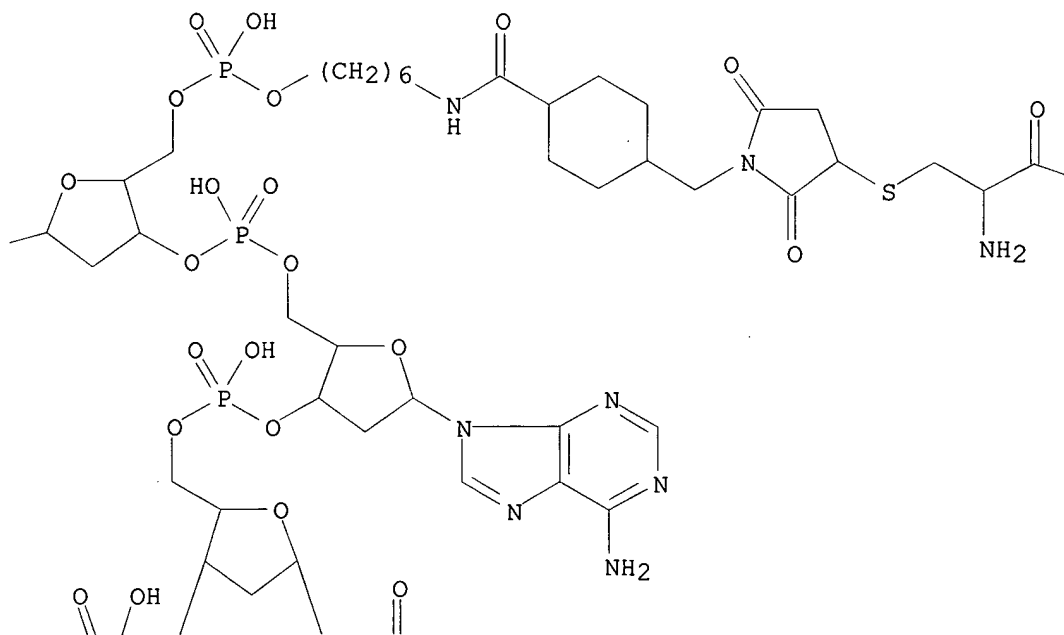
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CDES \*

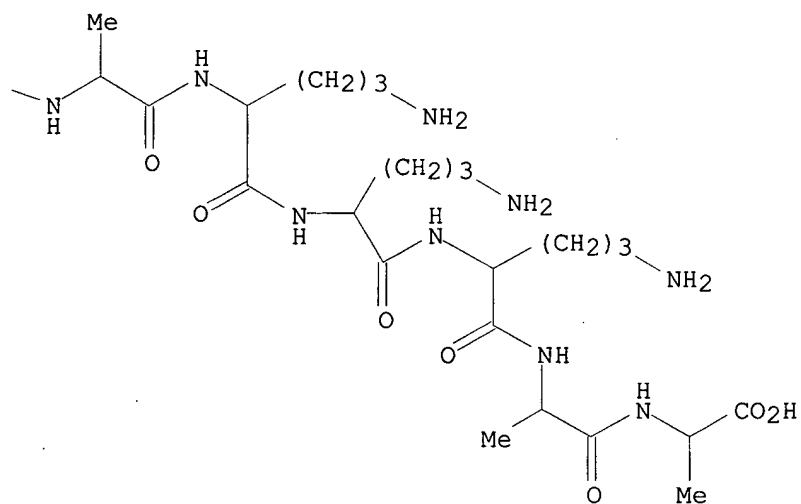
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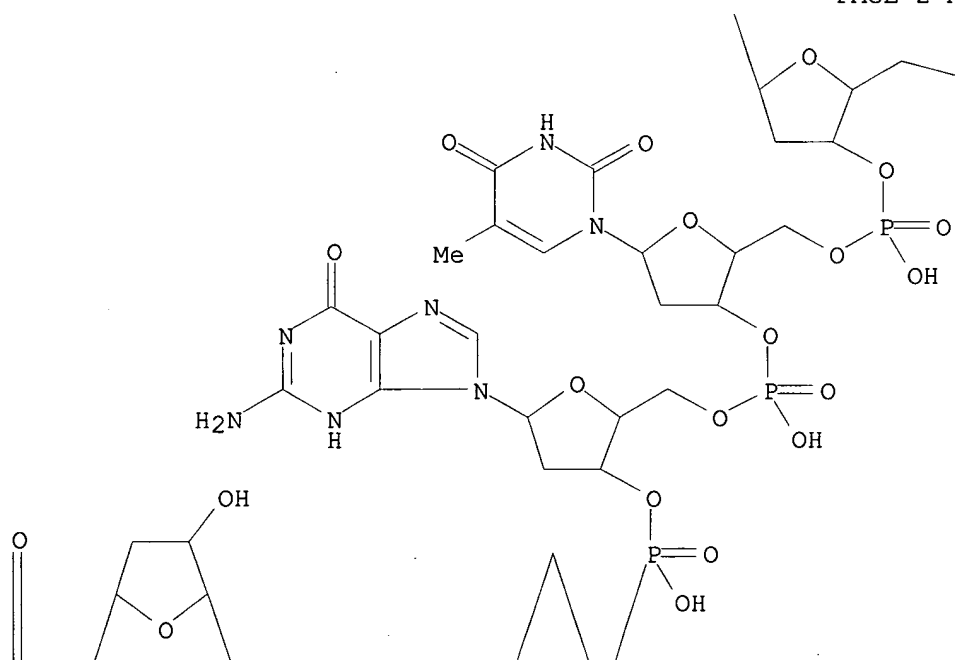
PAGE 1-B



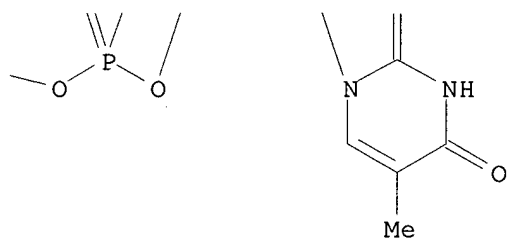
PAGE 1-C



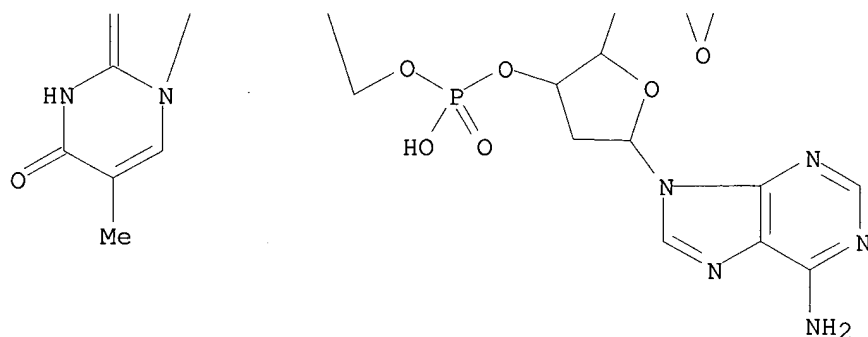
PAGE 2-A



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RN 212901-85-4 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny-L-ornithyl-L-alanyl-L-  
ornithyl-L-alanyl-L-ornithyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-  
T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

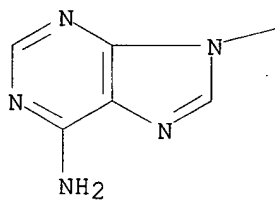
CM 2

CRN 212772-94-6

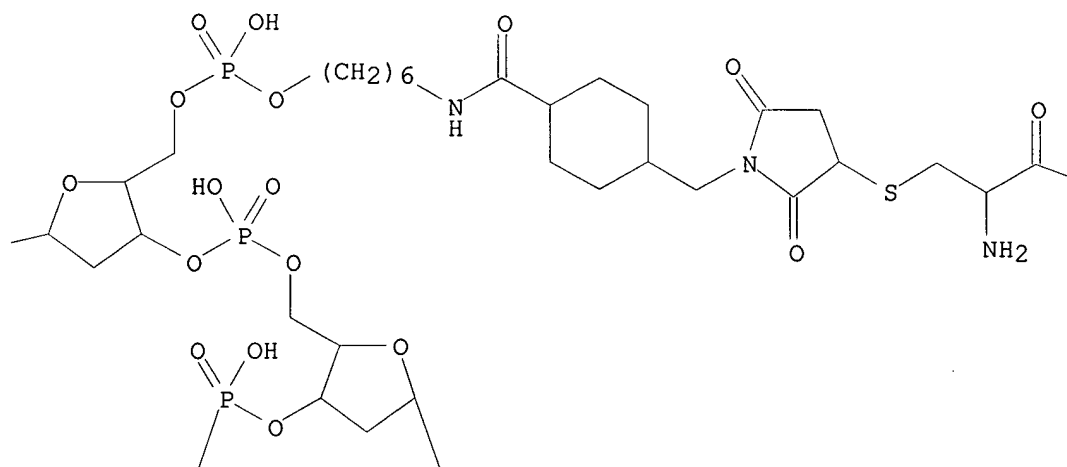
CMF C125 H179 N43 O60 P8 S

CDES \*

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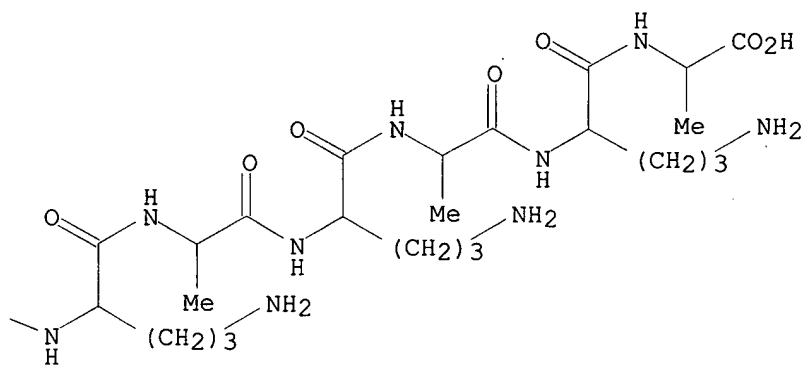


PAGE 1-B

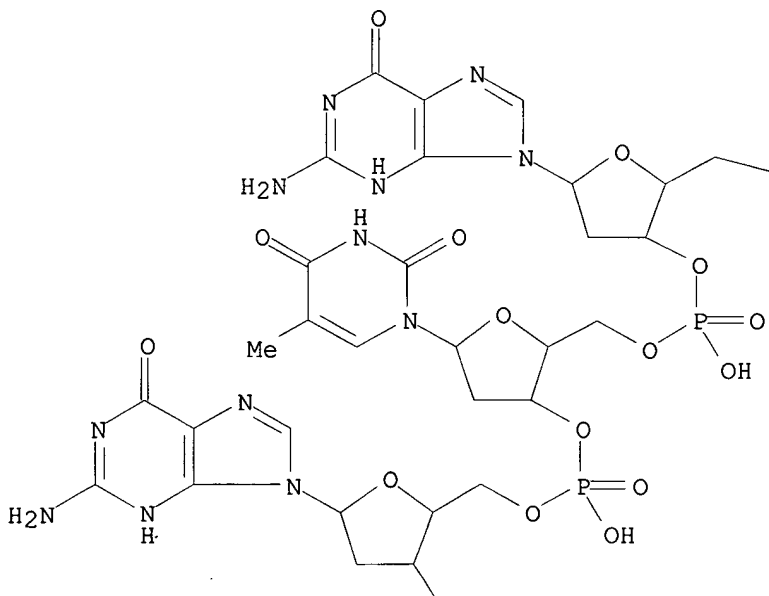




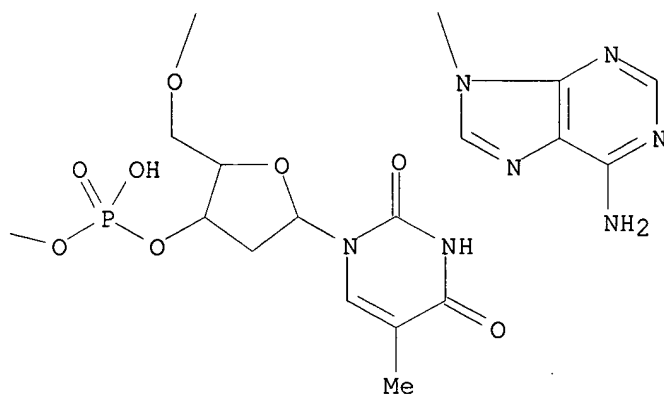
PAGE 1-C



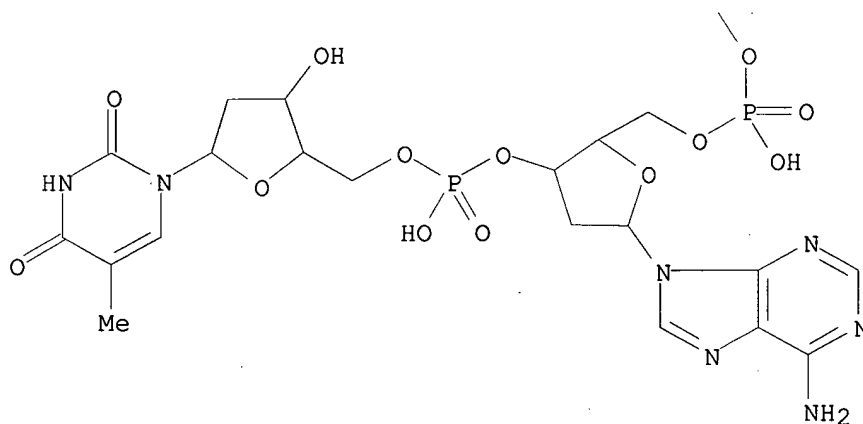
PAGE 2-A



PAGE 2-B



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RN 212901-86-5 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-alanyl-L-ornithyl-L-  
ornithyl-L-ornithyl-L-ornithyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-  
C-T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Searched by John Dantzman

308-4488

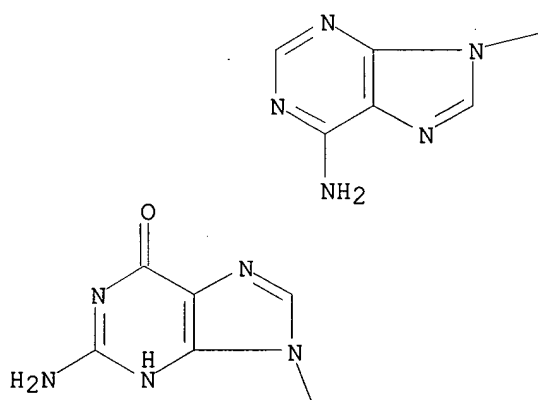
CM 2

CRN 212772-95-7

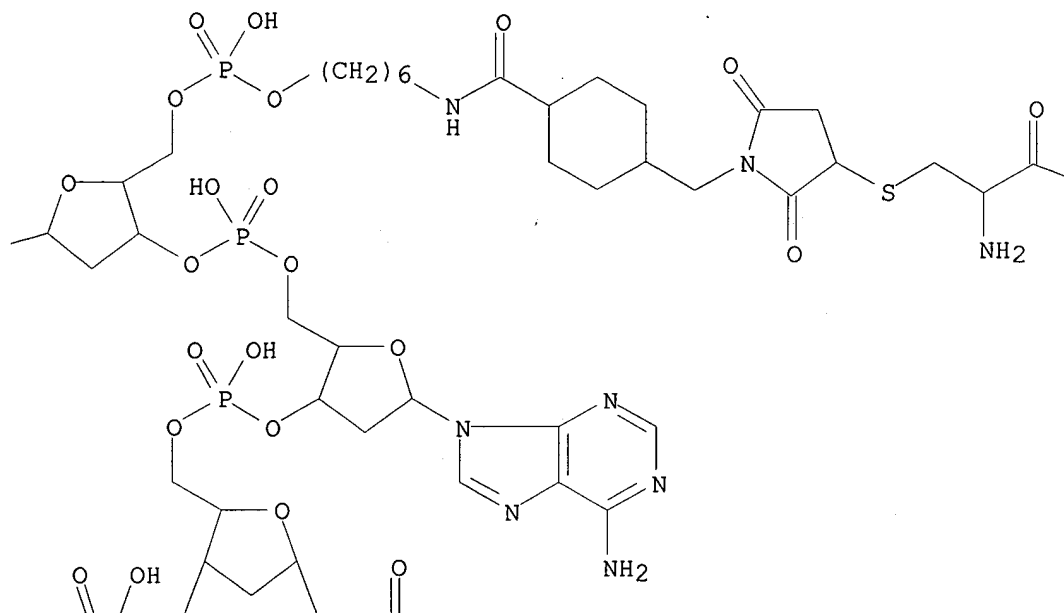
CMF C127 H184 N44 O60 P8 S

CDES \*

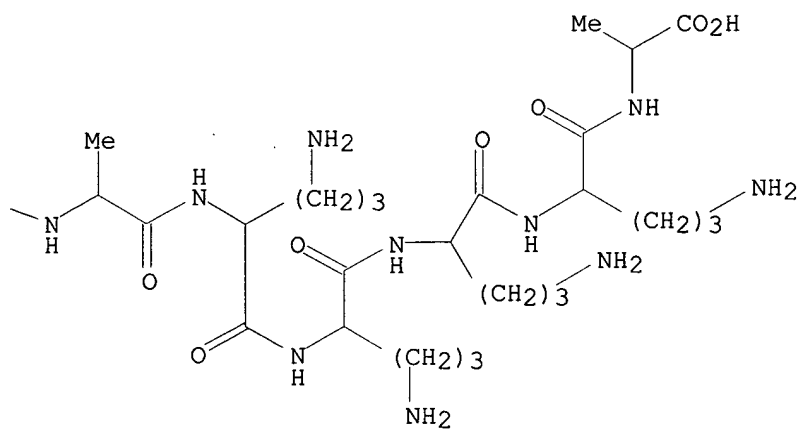
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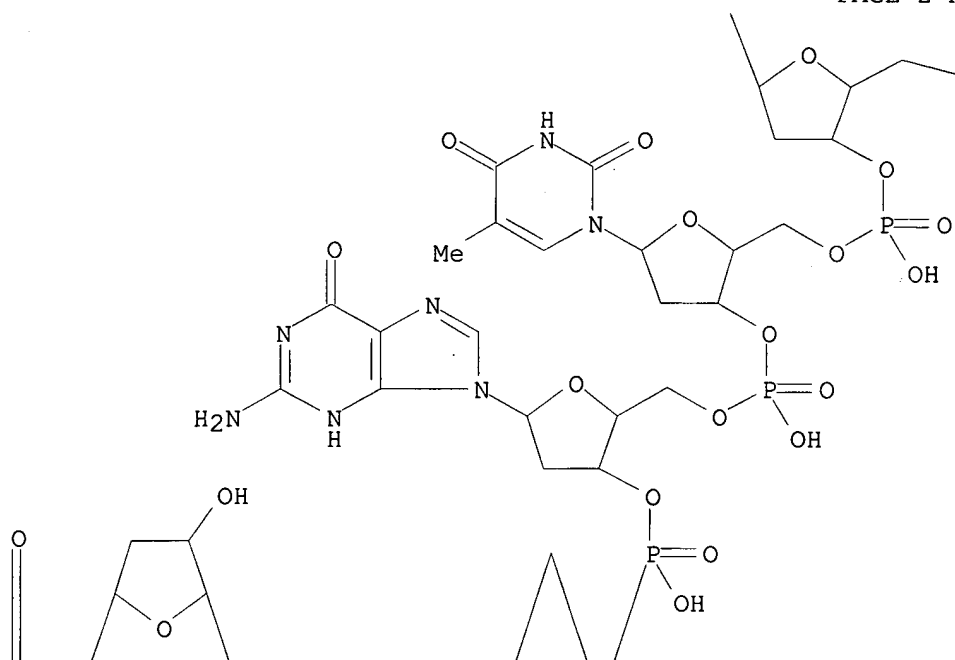
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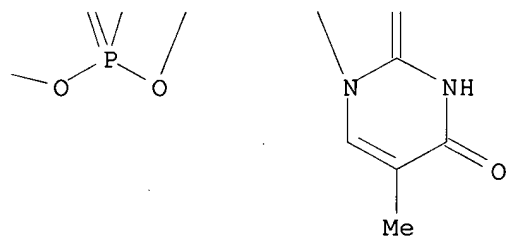
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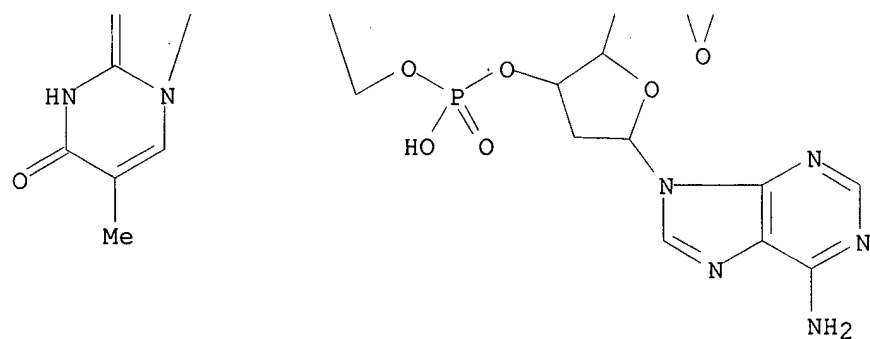
PAGE 2-A



PAGE 2-B



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RN 212901-87-6 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl)methyl]-3-pyrrolidinyl]-L-cysteinyl-L-ornithyl-L-ornithyl-L-  
alanyl-L-ornithyl-L-ornithyl-, compd. with DNA  
d(A-T-C-A-C-A-T-T-A-C-A-C-C-  
T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

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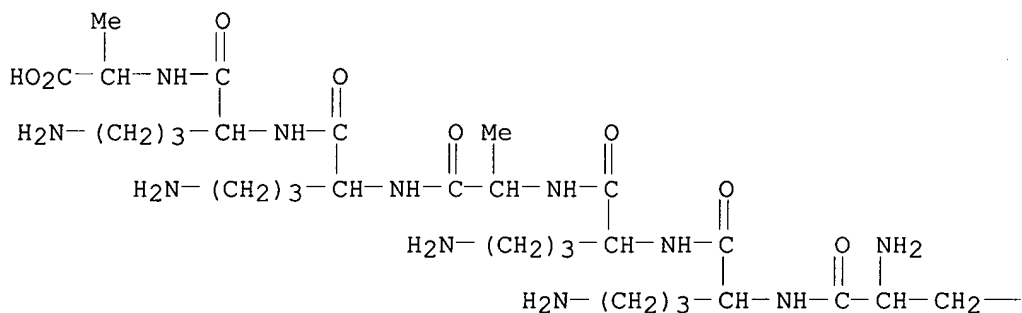
CM 2

CRN 212772-96-8

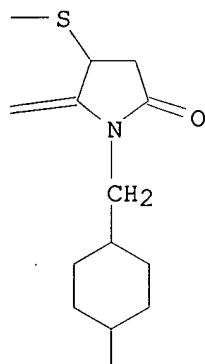
CMF C127 H184 N44 O60 P8 S

CDES \*

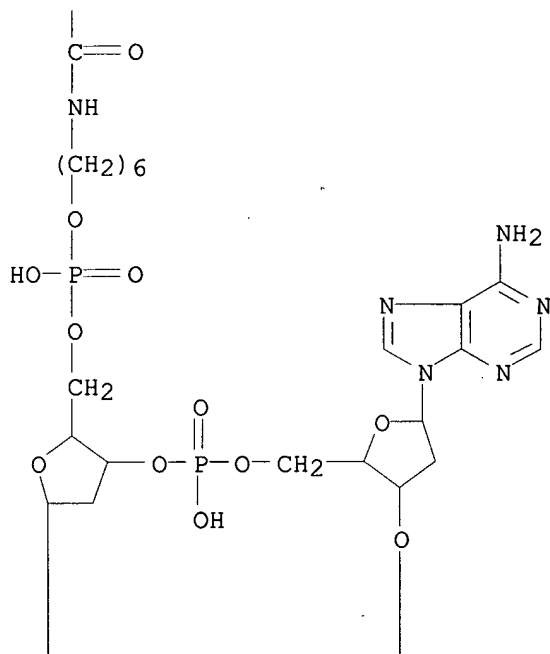
PAGE 1-A



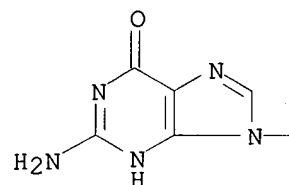
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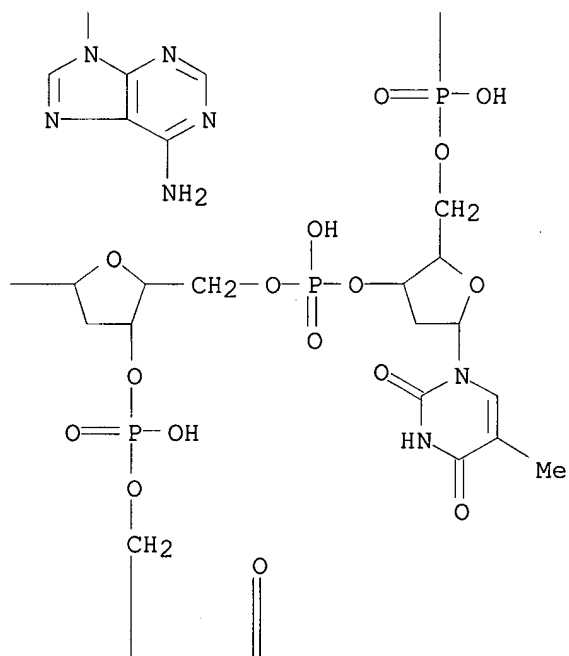
PAGE 2-B



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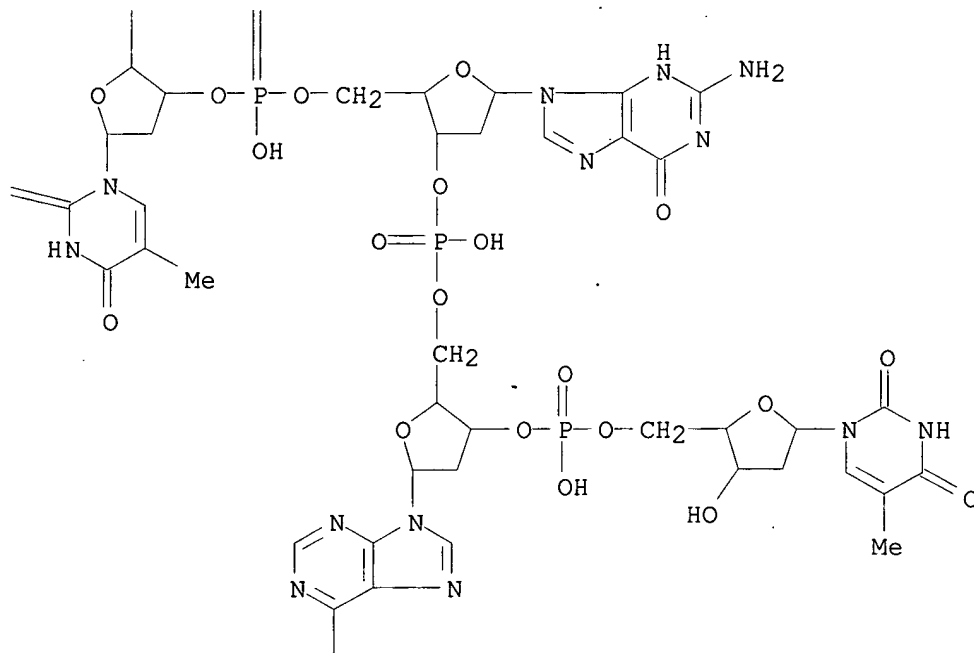


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NH<sub>2</sub>

RN 212901-89-8 HCAPLUS  
 CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
 nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-ornithyl-L-ornithyl-L-  
 ornithyl-L-ornithyl-L-ornithyl-, compd. with DNA  
 d(A-T-C-A-C-A-T-T-A-C-A-C-  
 C-T-A-G) (1:1) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 212780-26-2  
 CMF Unspecified  
 CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Searched by John Dantzman

308-4488

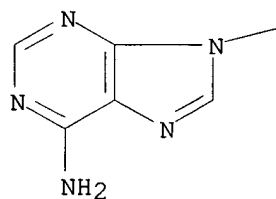
CM 2

CRN 212772-98-0

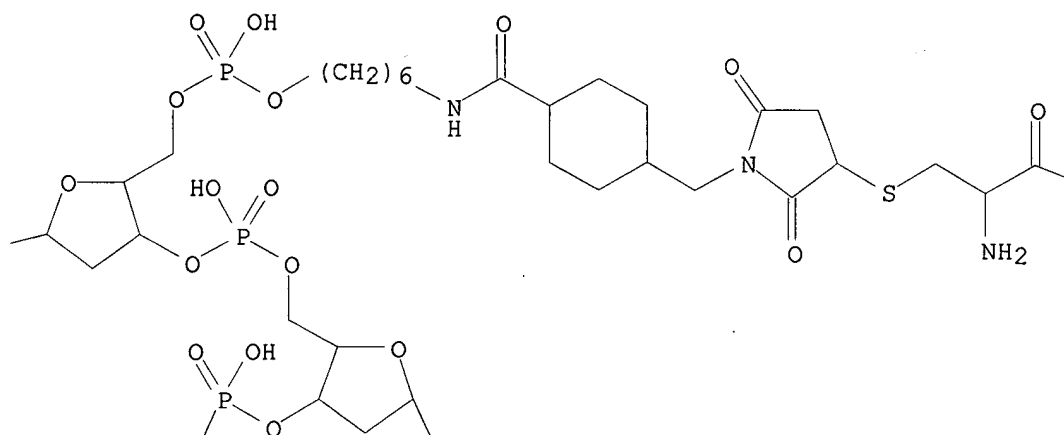
CMF C129 H189 N45 O60 P8 S

CDES \*

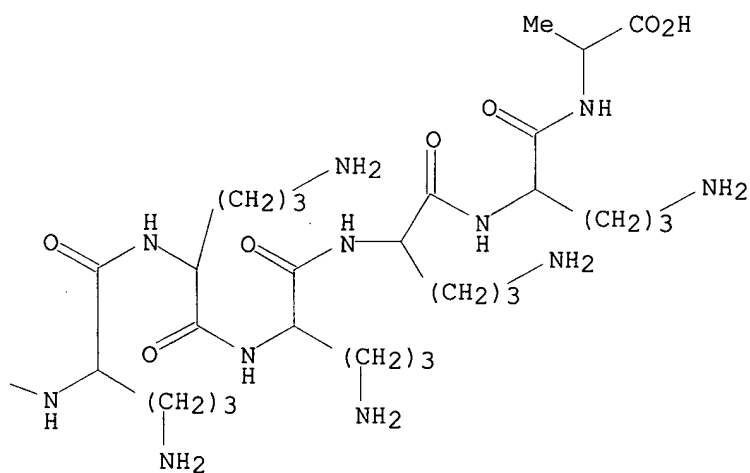
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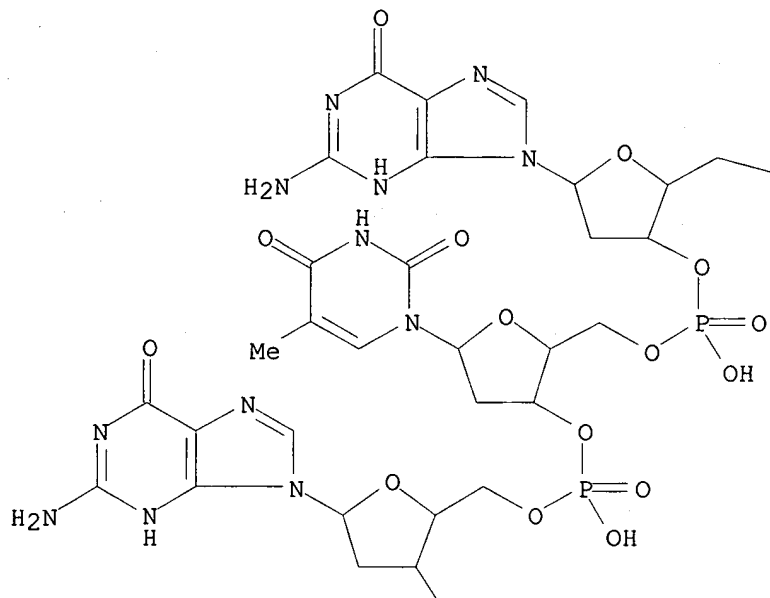
PAGE 1-B



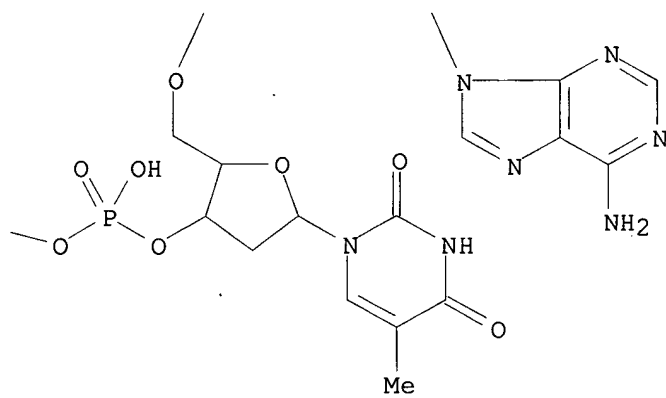
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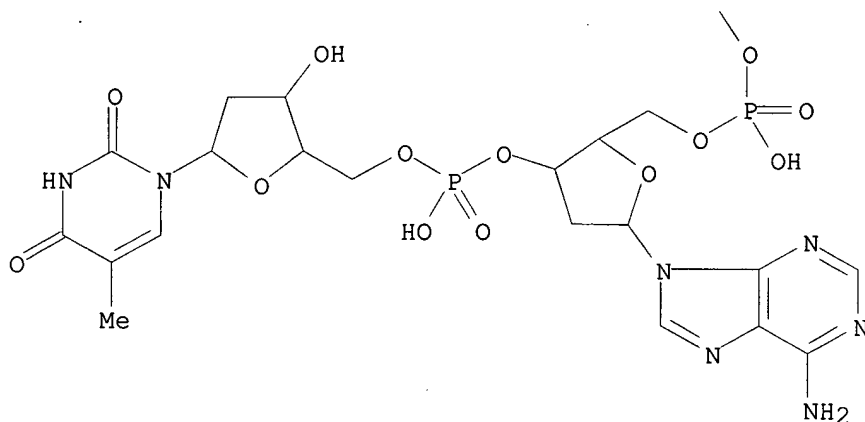
PAGE 2-A



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RN 212901-91-2 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-  
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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo

nyl]cyclohexyl)methyl]-3-pyrrolidinyl]-L-cysteinyl-L-ornithyl-L-ornithyl-L-  
tryptophyl-L-ornithyl-L-ornithyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-

C-C-T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

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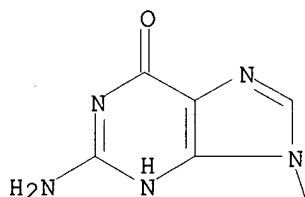
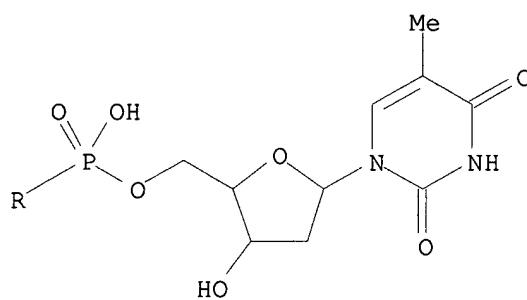
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CRN 212772-99-1

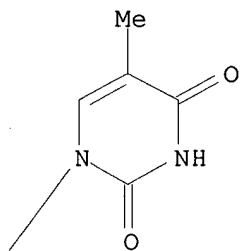
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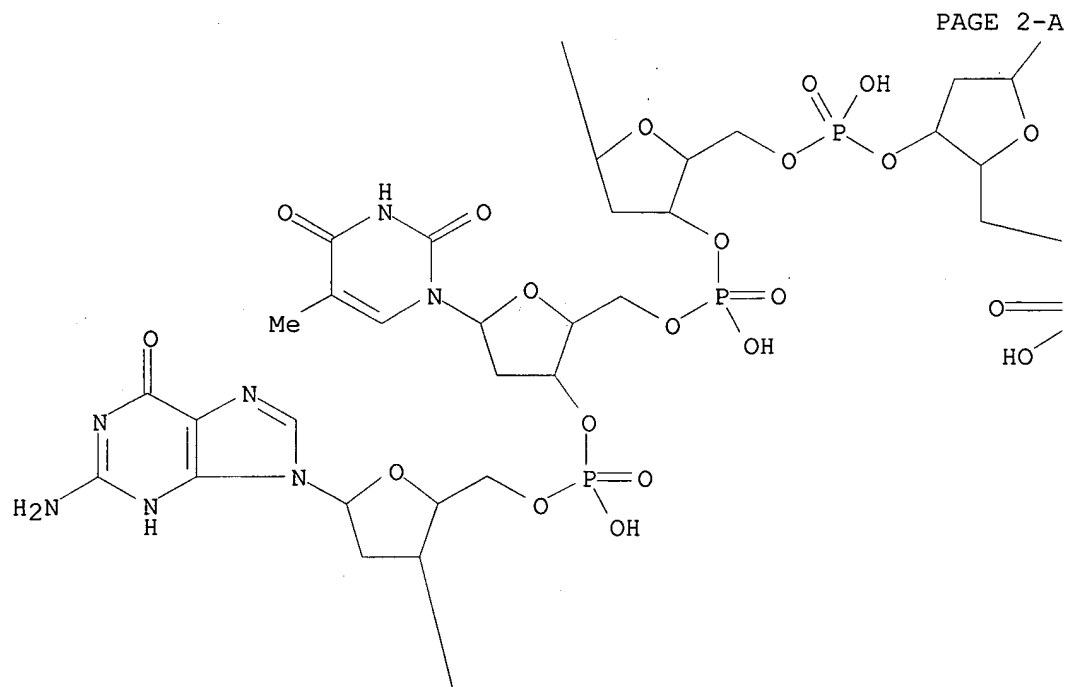
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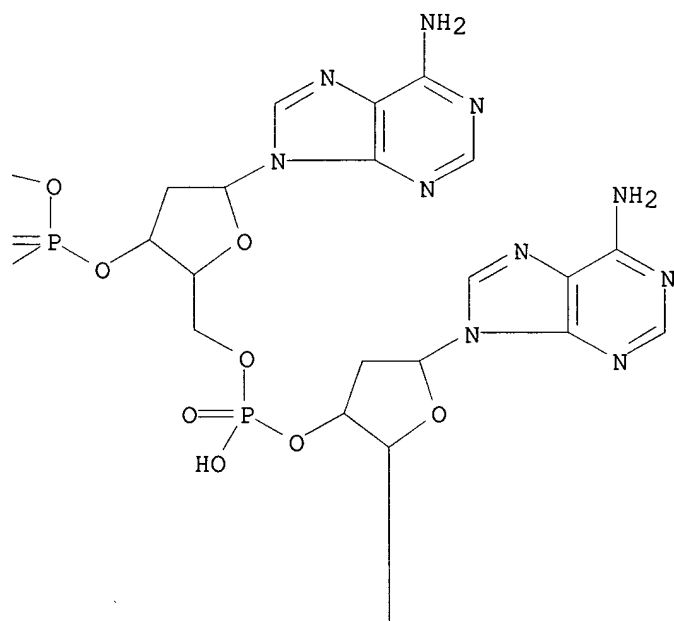


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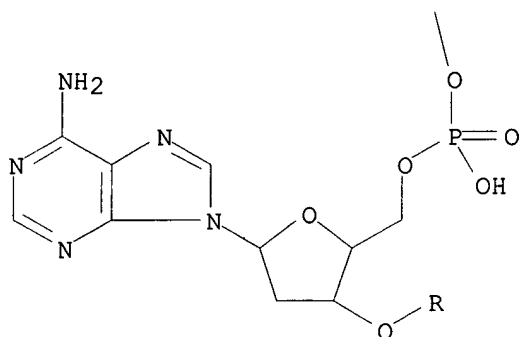




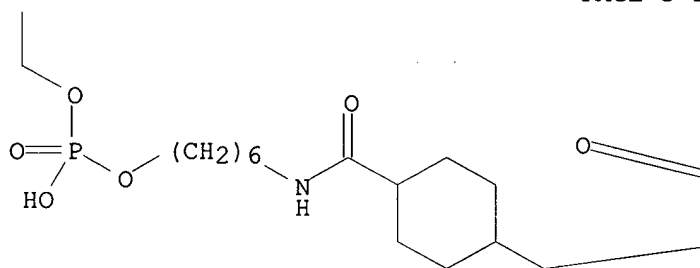
PAGE 2-B



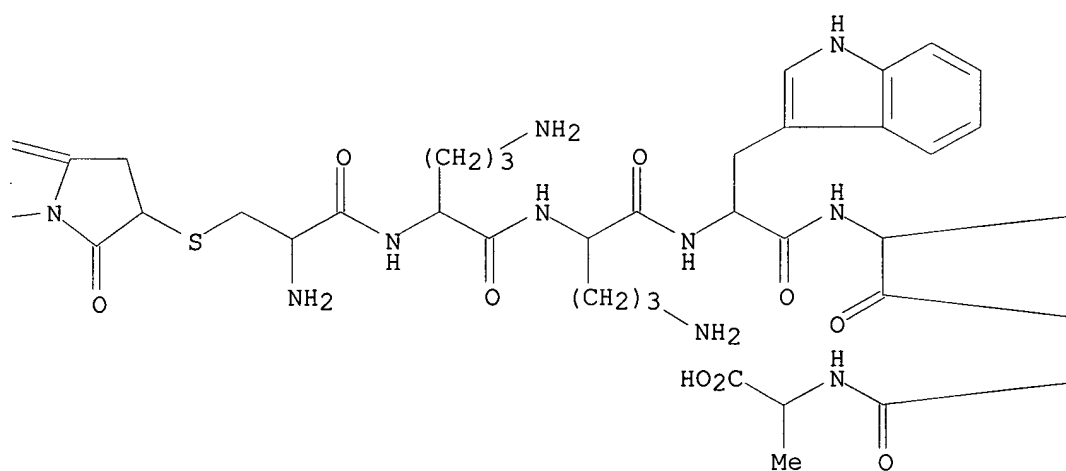
PAGE 3-A



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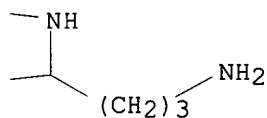
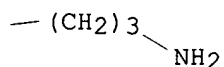


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RN 212902-04-0 HCAPLUS

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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny-L-alanyl-L-histidyl-L-  
histidyl-L-alanyl-L-alanyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

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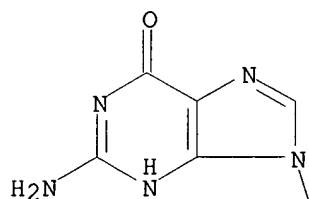
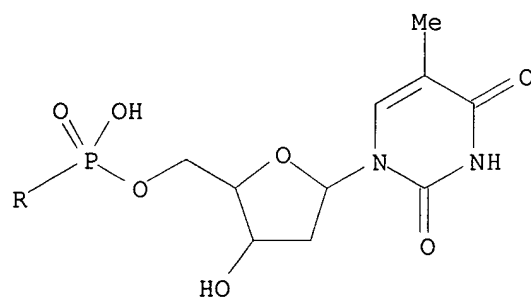
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CRN 212773-00-7

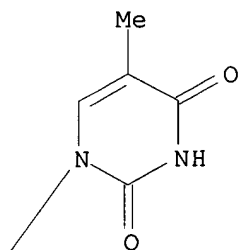
CMF C125 H168 N44 O60 P8 S

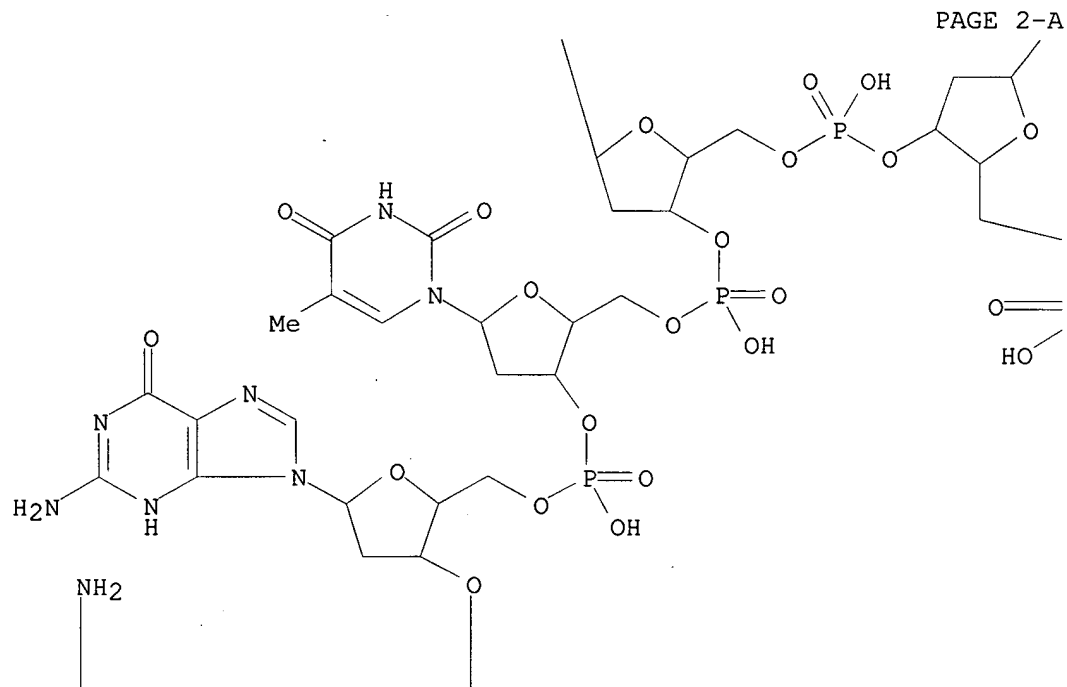
CDES \*

PAGE 1-A

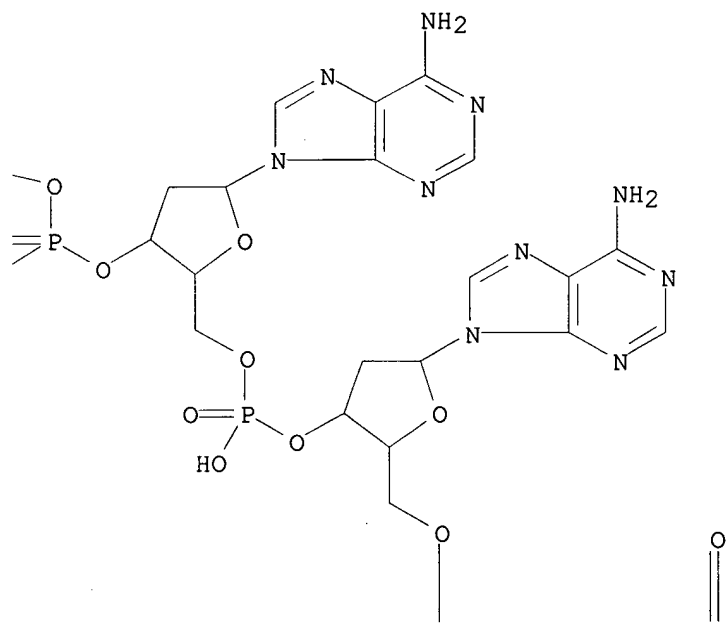


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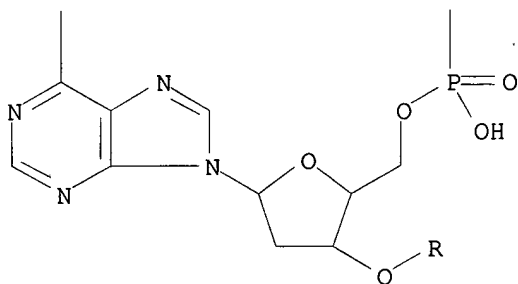




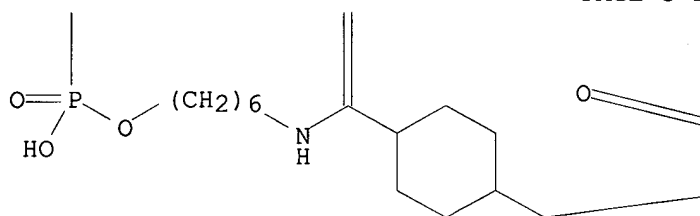
PAGE 2-B



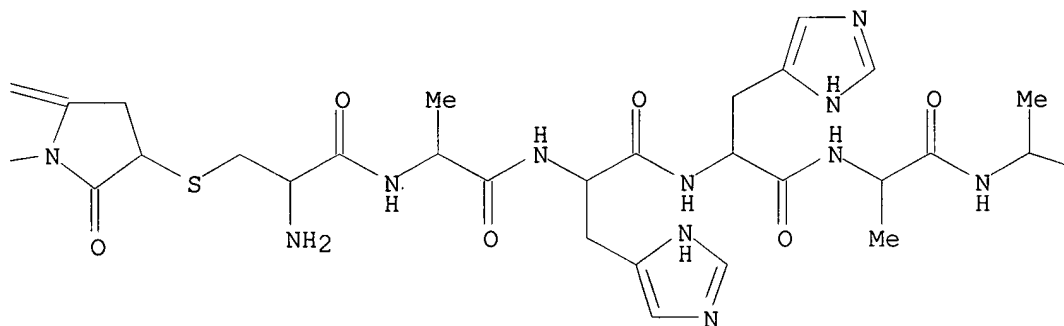
PAGE 3-A



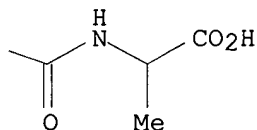
PAGE 3-B



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RN 212902-05-1 HCAPLUS

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nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny-L-alanyl-L-histidyl-L-  
alanyl-L-histidyl-L-alanyl-, compd. with DNA  
d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

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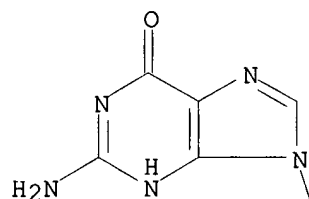
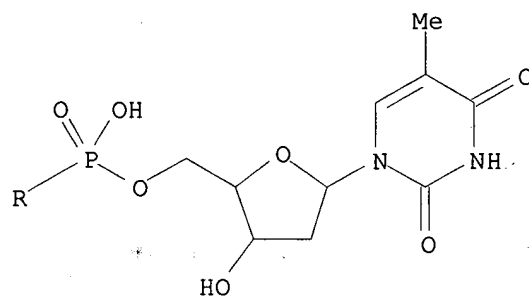
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CRN 212773-01-8

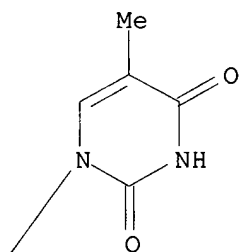
CMF C125 H168 N44 O60 P8 S

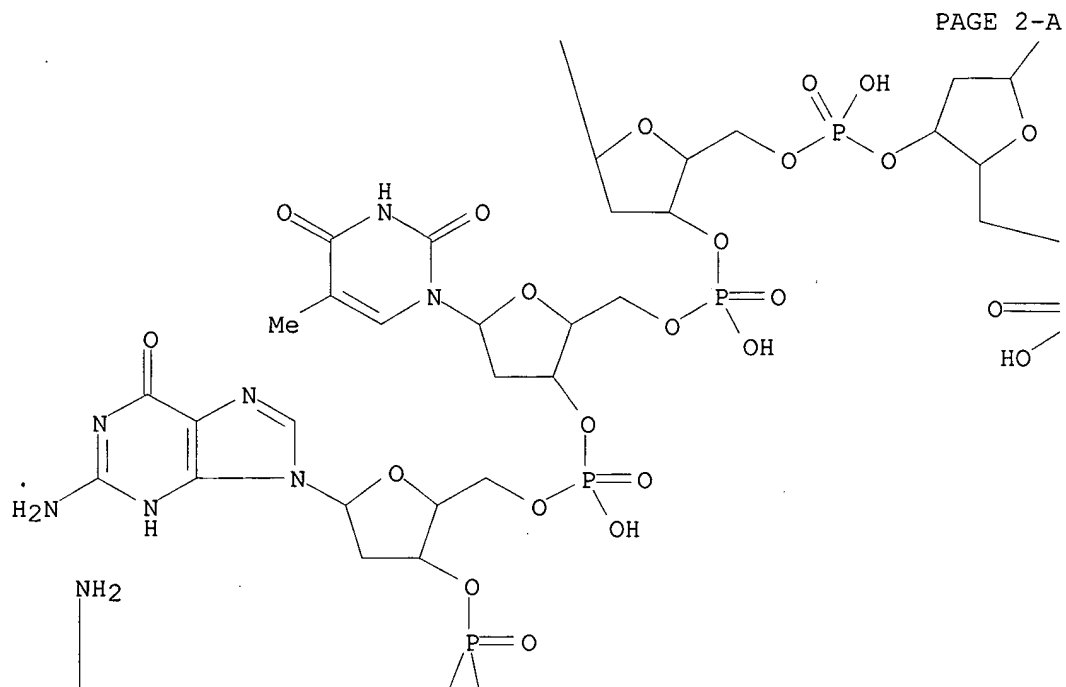
CDES \*

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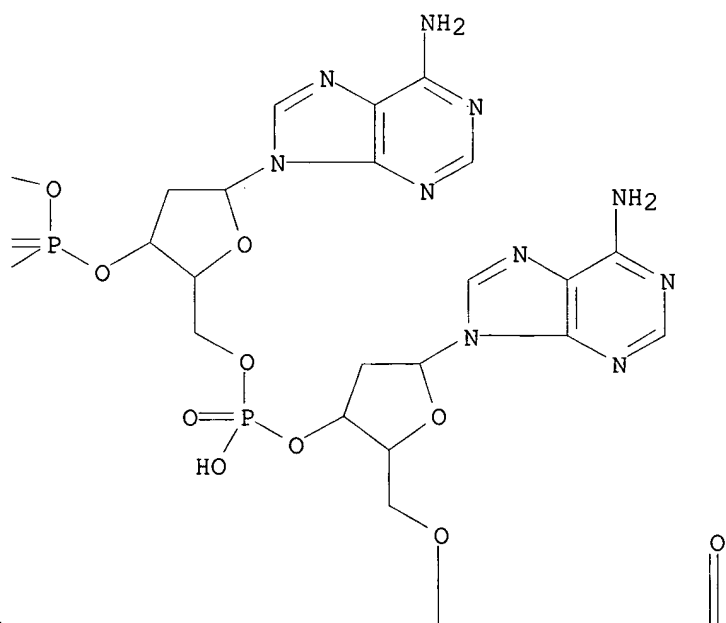


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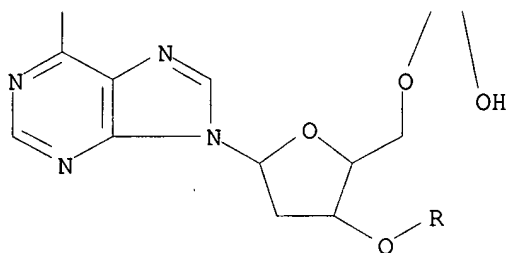




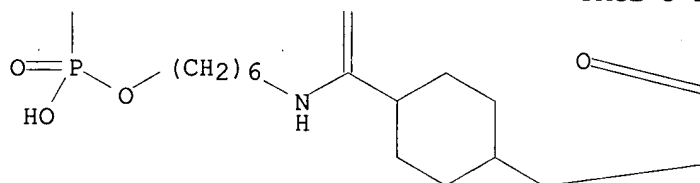
PAGE 2-B



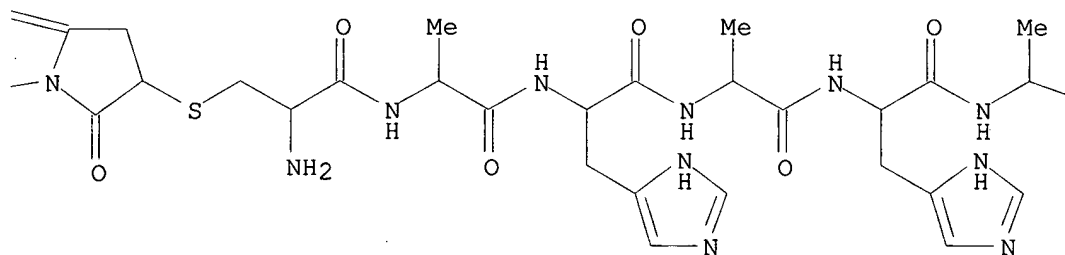
PAGE 3-A



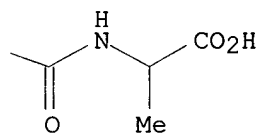
PAGE 3-B



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RN 212902-06-2 HCAPLUS

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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl)methyl]-3-pyrrolidinyll]-L-cysteinyll]-L-alanyl-L-histidyl-L-  
histidyl-L-histidyl-L-alanyl-, compd. with DNAd(A-T-C-A-C-A-T-T-A-C-A-C-C-  
T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

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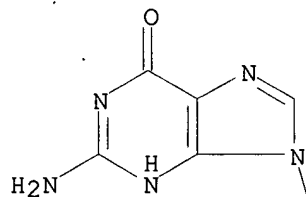
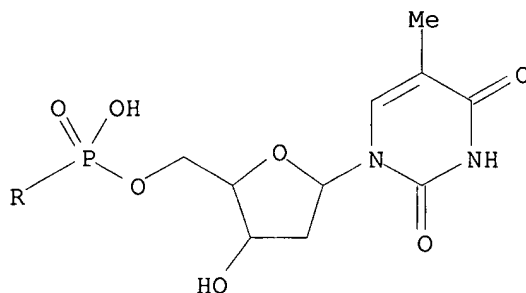
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CRN 212773-02-9

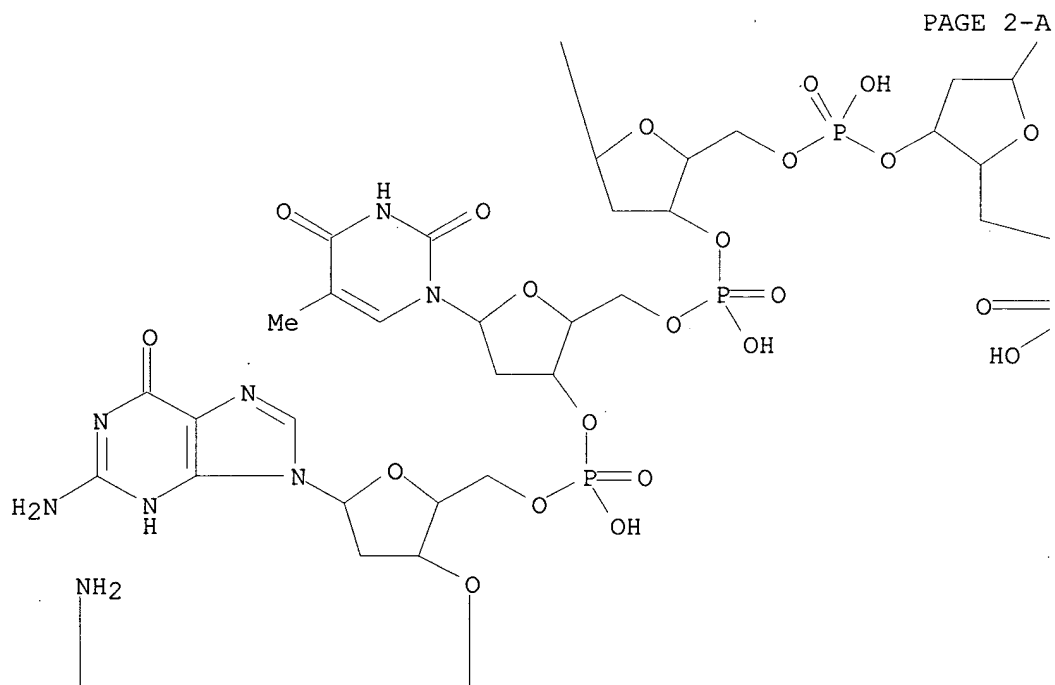
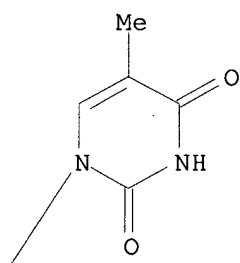
CMF C128 H170 N46 O60 P8 S

CDES \*

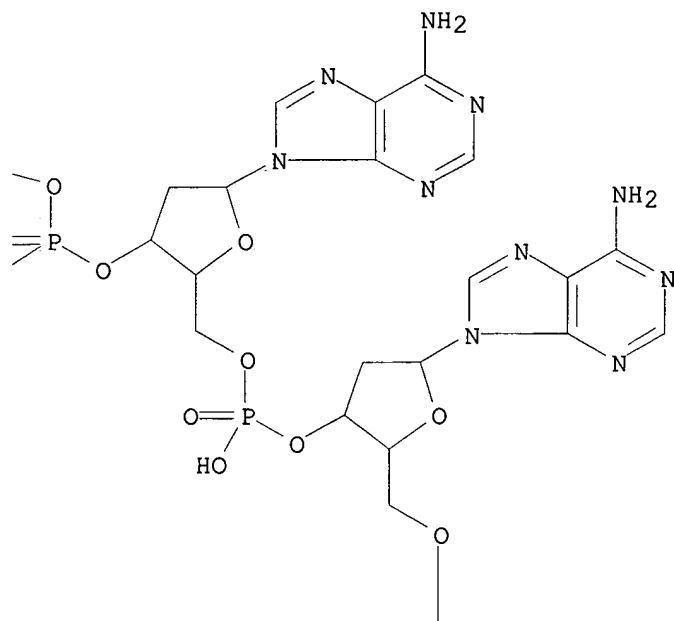
PAGE 1-A



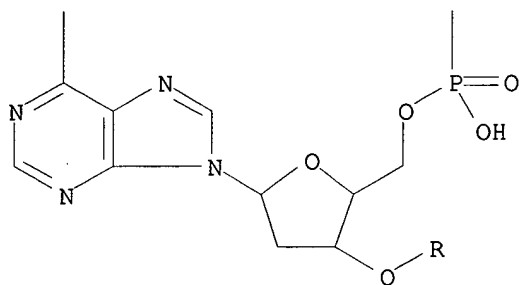
PAGE 1-B



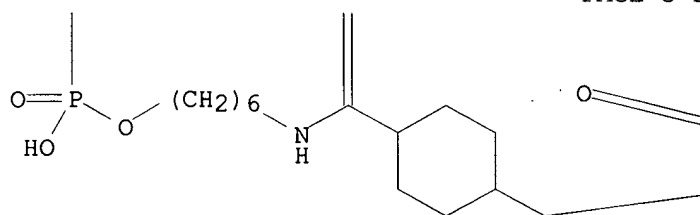
PAGE 2-B



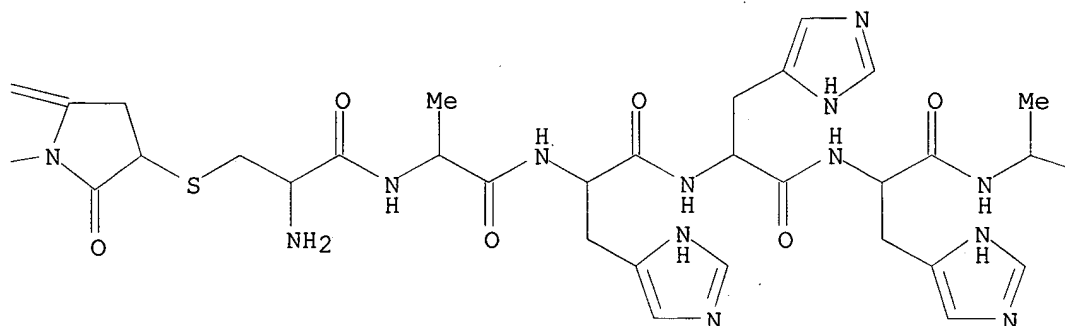
PAGE 3-A



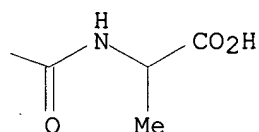
PAGE 3-B



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PAGE 3-D



RN 212902-21-1 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidiny]]-L-cysteinyl-L-histidyl-L-alanyl-L-  
histidyl-L-alanyl-L-histidyl-, compd. with DNA  
d(A-T-C-A-C-A-T-T-A-C-A-C-C-  
T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

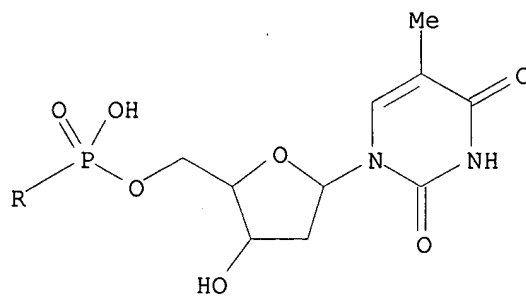
CRN 212780-26-2  
CMF Unspecified  
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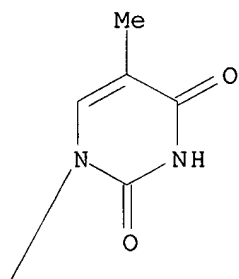
CM 2

CRN 212773-04-1  
CMF C128 H170 N46 O60 P8 S  
CDES \*

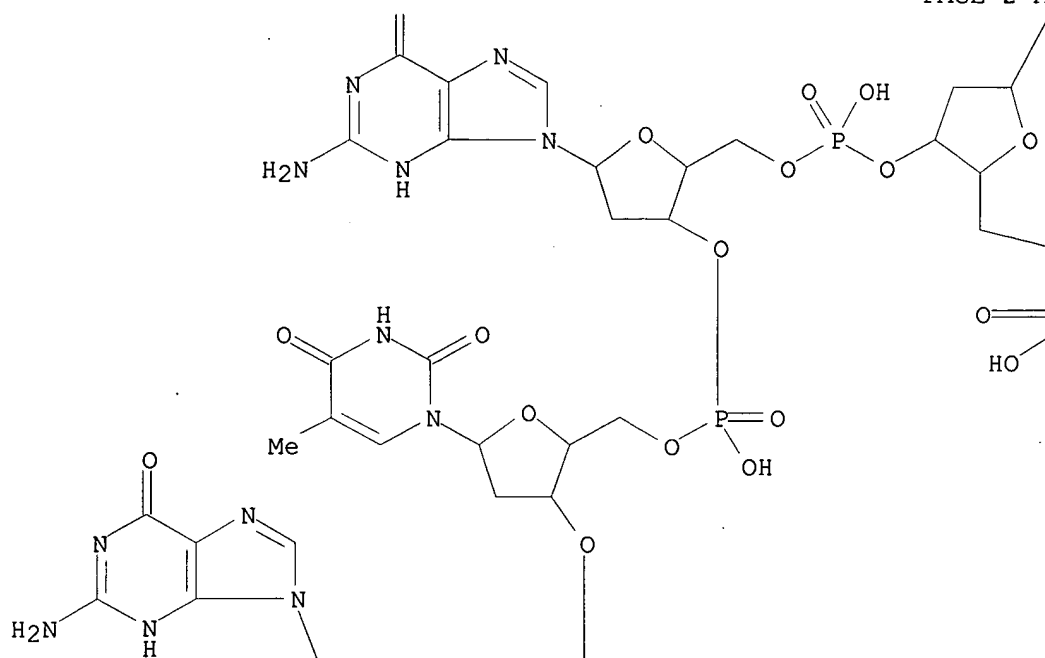
PAGE 1-A



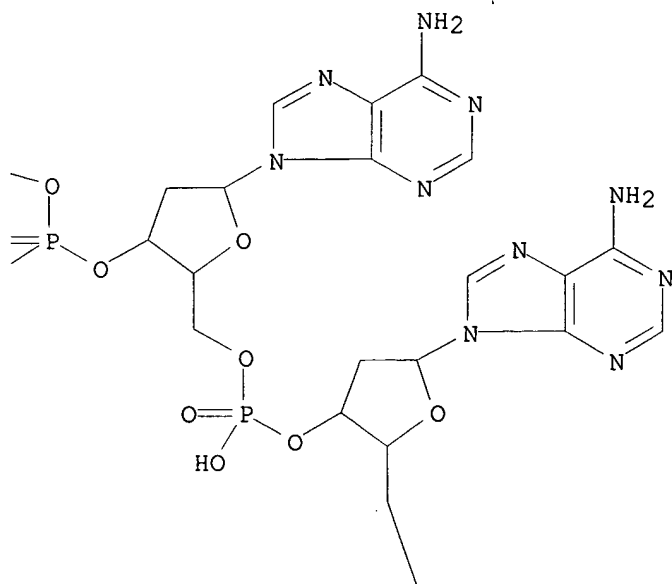
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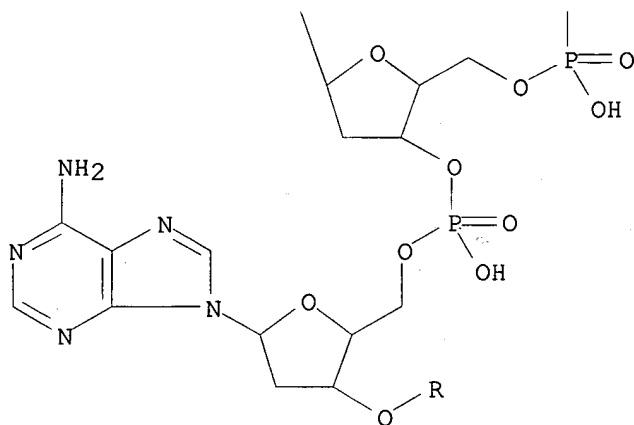
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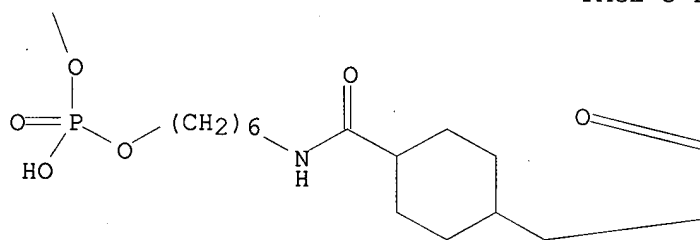
PAGE 2-B



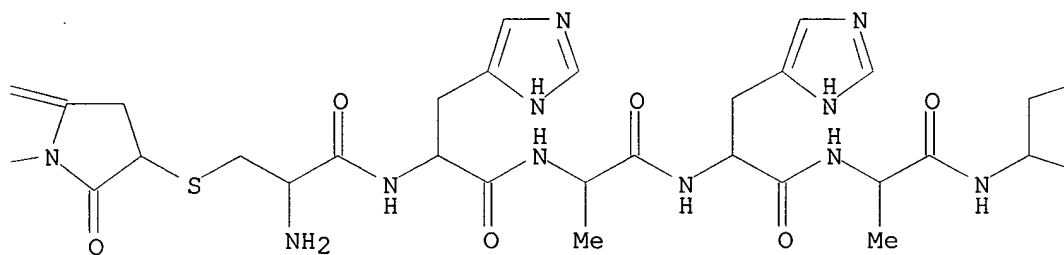
PAGE 3-A



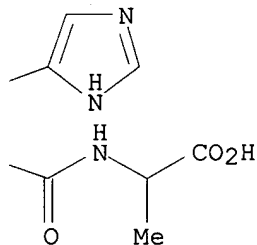
PAGE 3-B



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PAGE 3-D



RN 212902-66-4 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny-L-alanyl-L-histidyl-L-  
histidyl-L-histidyl-L-histidyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-

C-T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

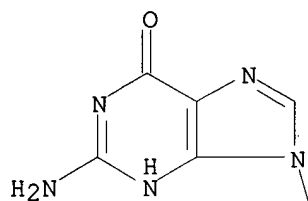
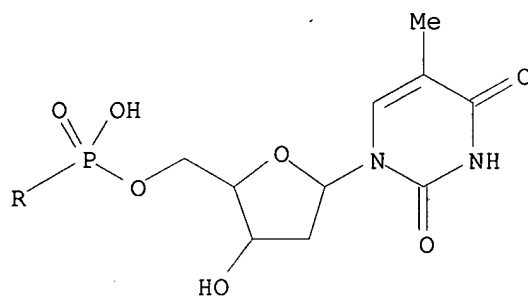
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CMF C131 H172 N48 O60 P8 S

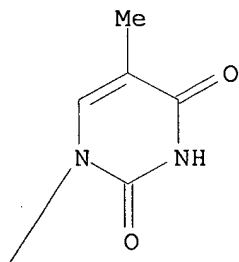
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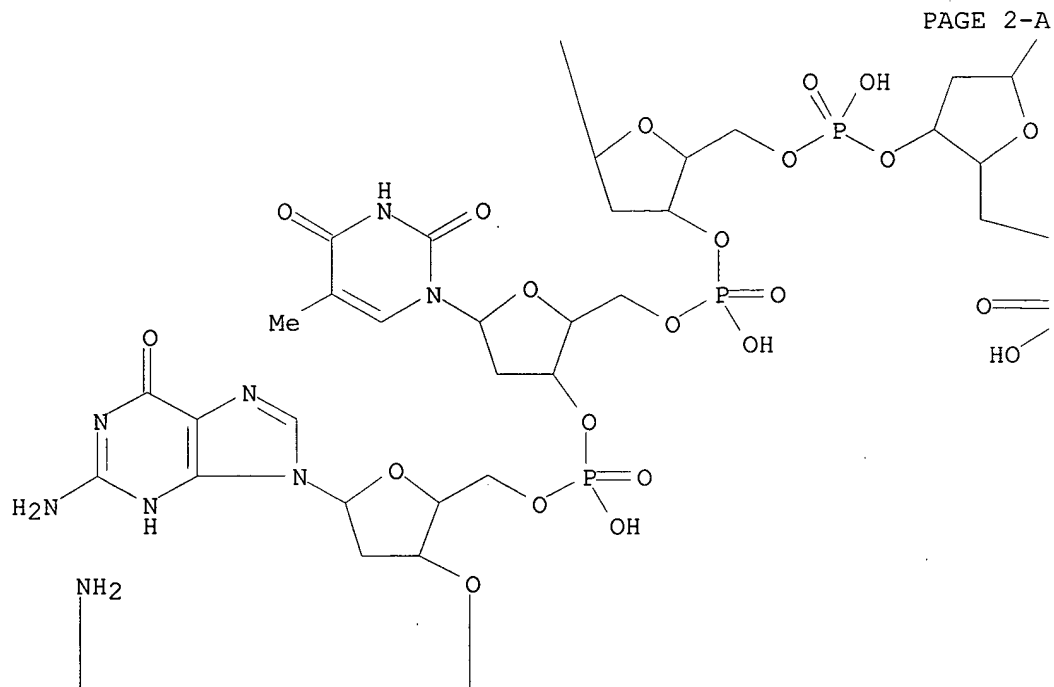


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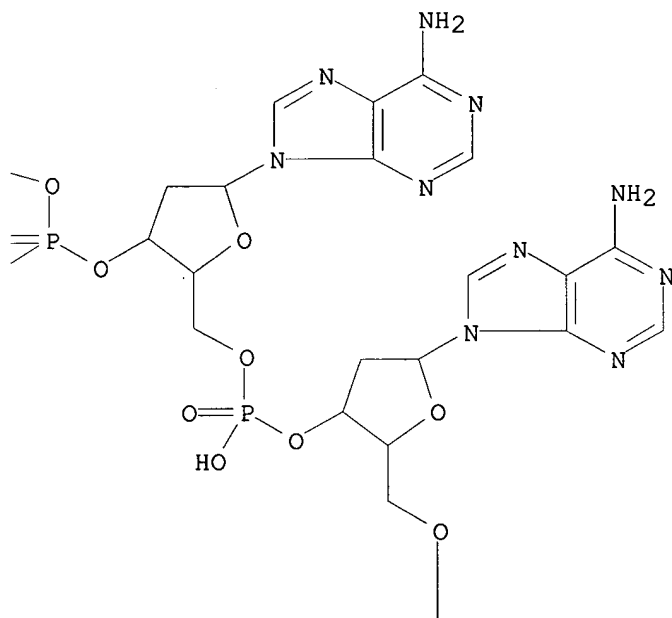


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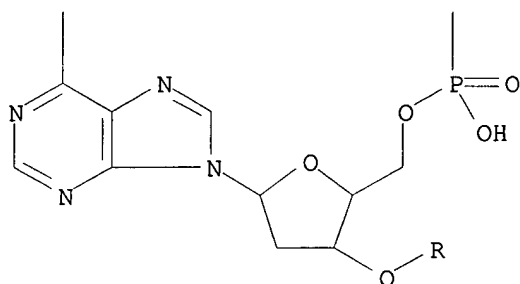




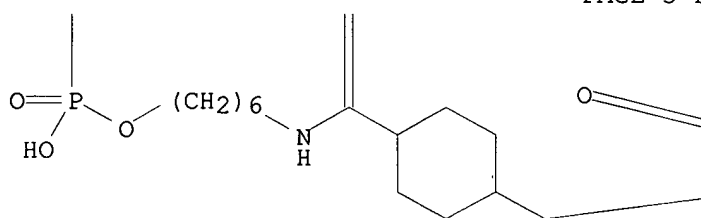
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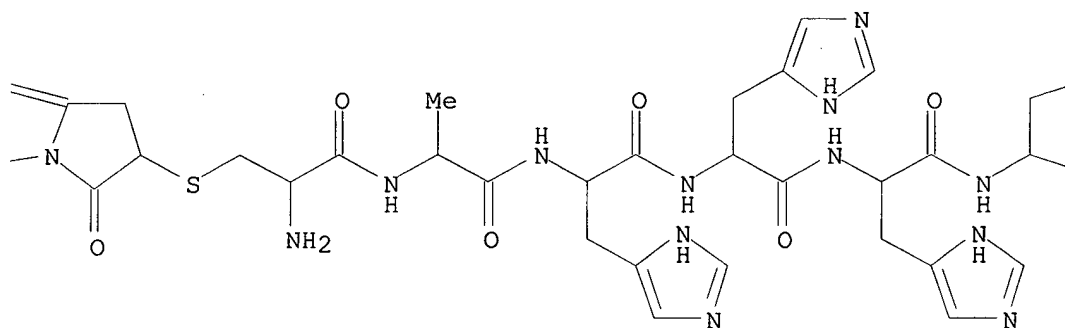
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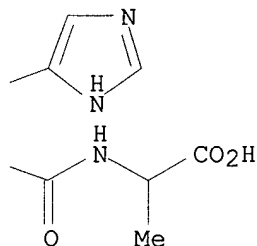
PAGE 3-B



PAGE 3-C



PAGE 3-D



RN 212902-81-3 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo

nyl]cyclohexyl)methyl]-3-pyrrolidinyl]-L-cysteiny]-L-histidyl-L-histidyl-L-alanyl-L-histidyl-L-histidyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-G) (1:1) (9CI) (CA INDEX NAME)

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CRN 212780-26-2

CMF Unspecified

CCI MAN

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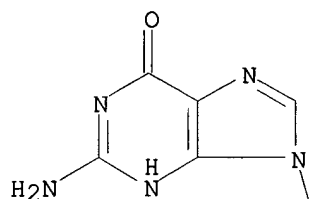
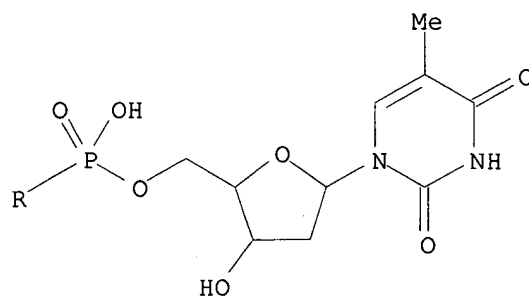
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CRN 212773-06-3

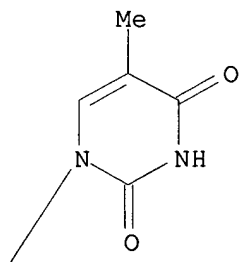
CMF C131 H172 N48 O60 P8 S

CDES \*

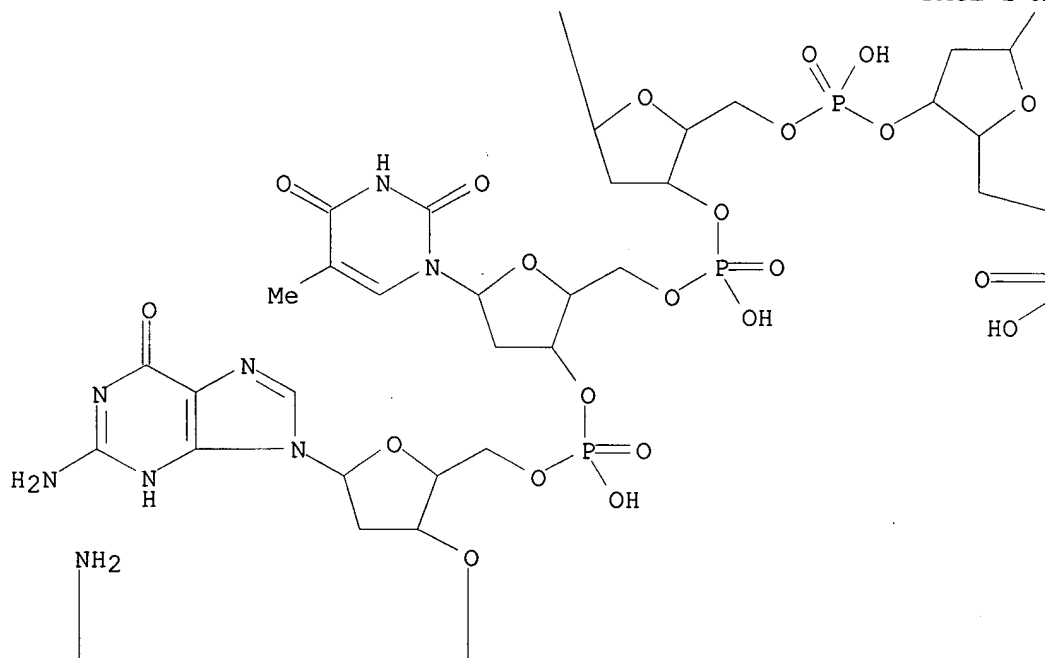
PAGE 1-A



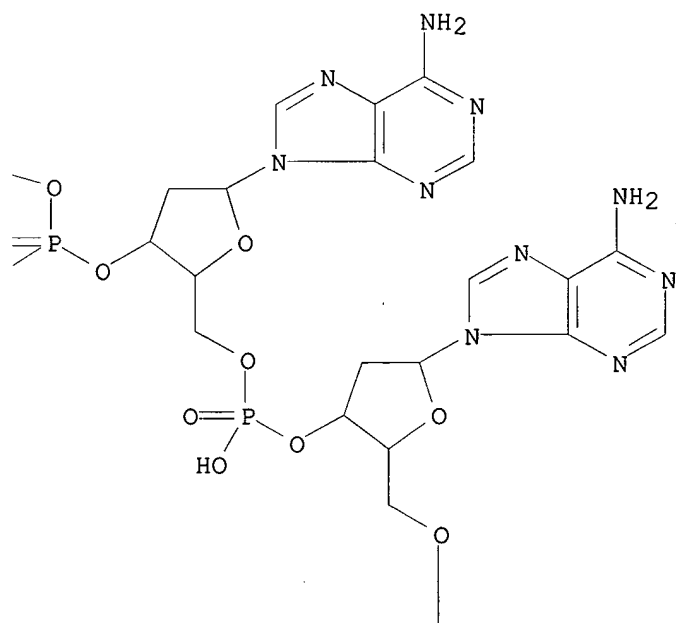
PAGE 1-B



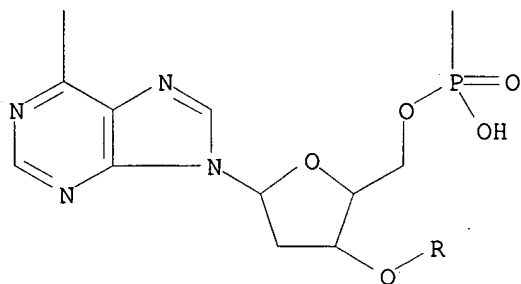
PAGE 2-A



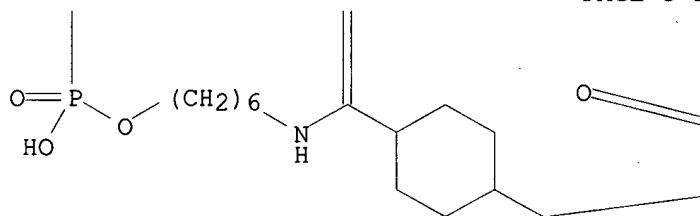
PAGE 2-B



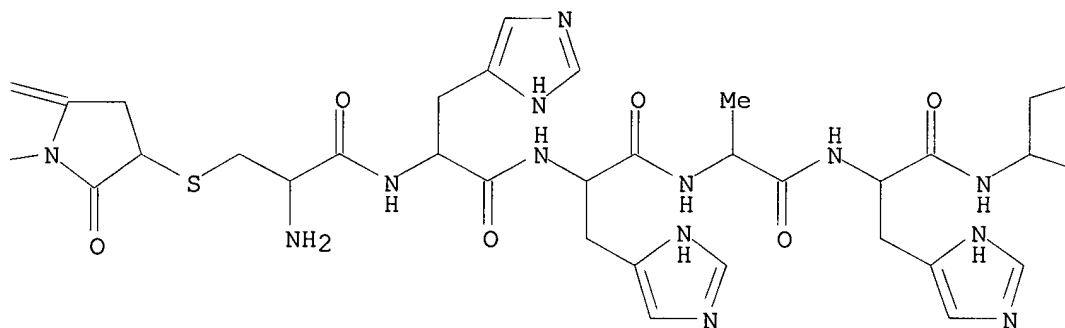
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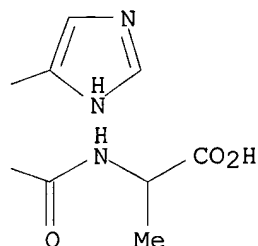
PAGE 3-B



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RN 212903-04-3 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo

nyl]cyclohexyl)methyl]-3-pyrrolidinyl]-L-cysteiny]-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

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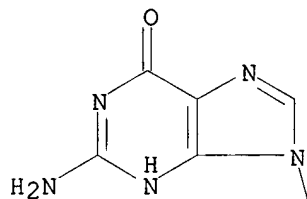
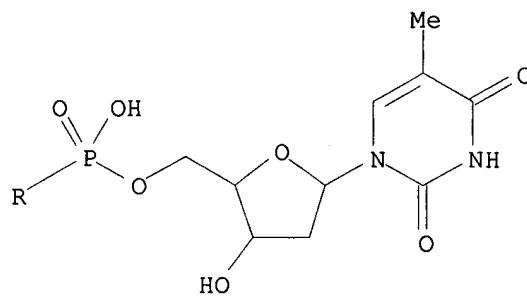
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CMF C134 H174 N50 O60 P8 S

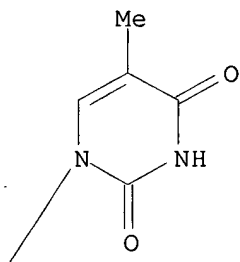
CDES \*



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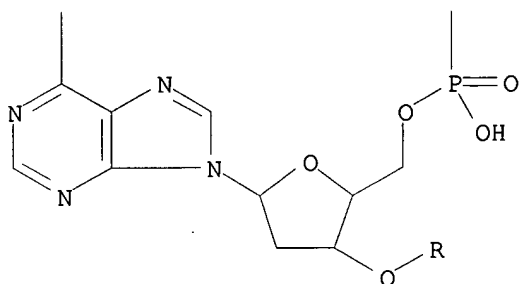


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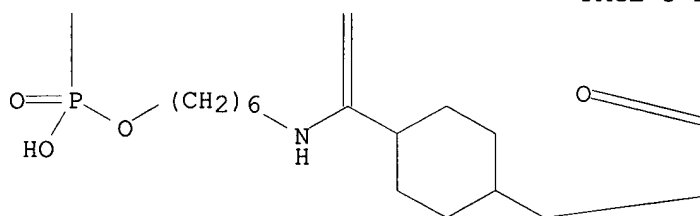




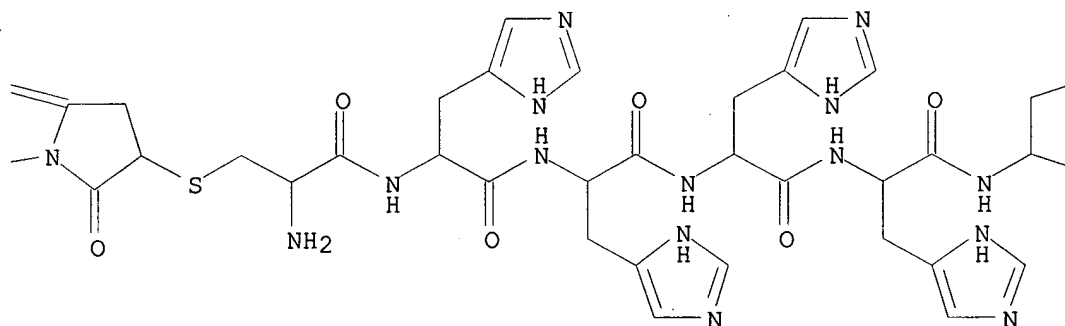
PAGE 3-A



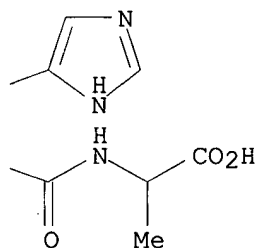
PAGE 3-B



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RN 212903-37-2 HCAPLUS

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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-alanyl-L-arginyl-L-  
arginyl-L-alanyl-L-alanyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

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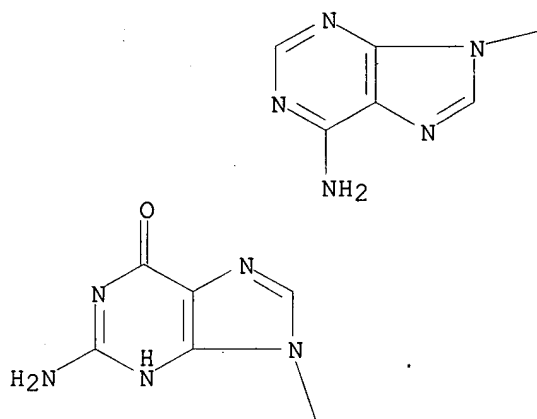
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CRN 212773-08-5

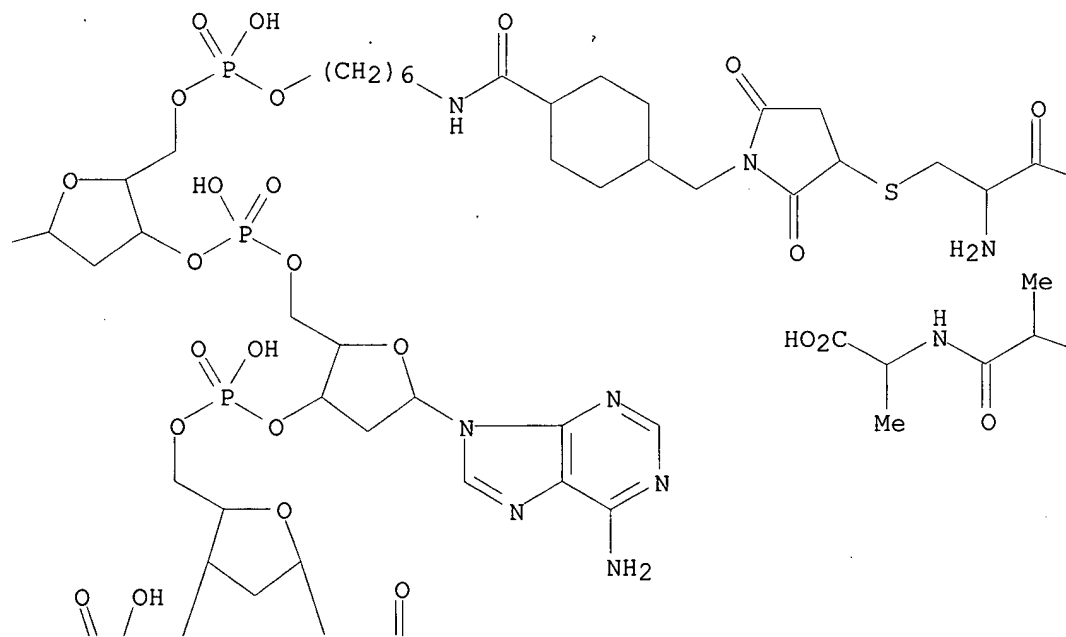
CMF C125 H178 N46 O60 P8 S

CDES \*

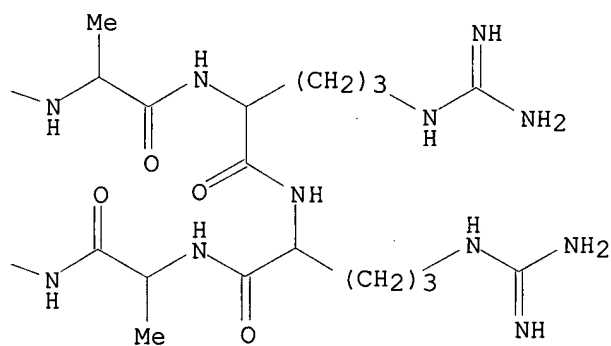
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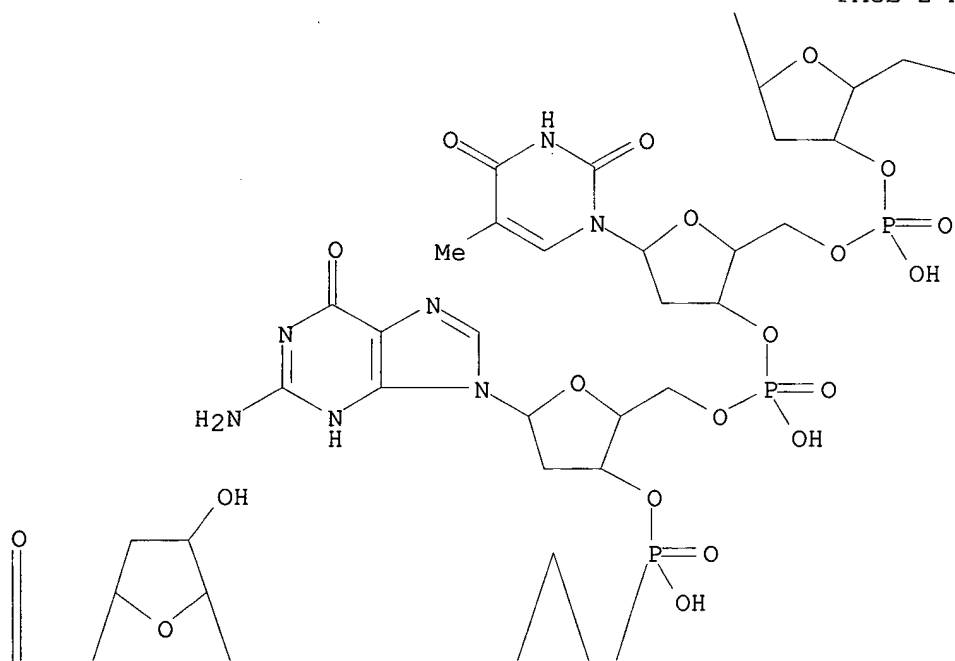
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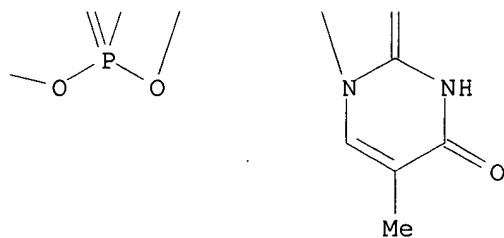
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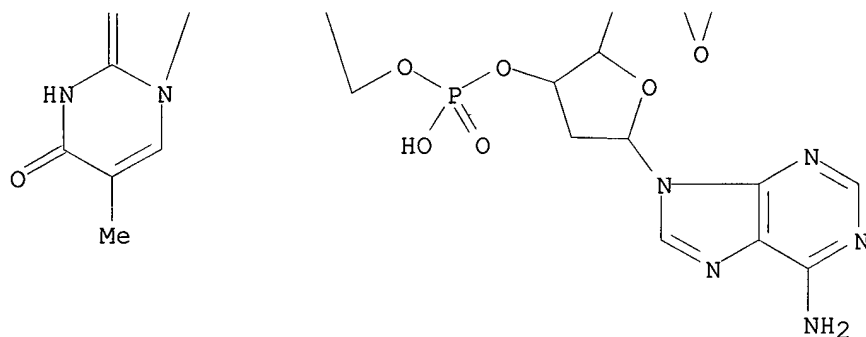
PAGE 2-A



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RN 212903-63-4 HCAPLUS

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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyll-L-cysteinyll-L-alanyll-L-arginyll-L-  
alanyll-L-arginyll-L-alanyll-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

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CRN 212780-26-2

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CCI MAN

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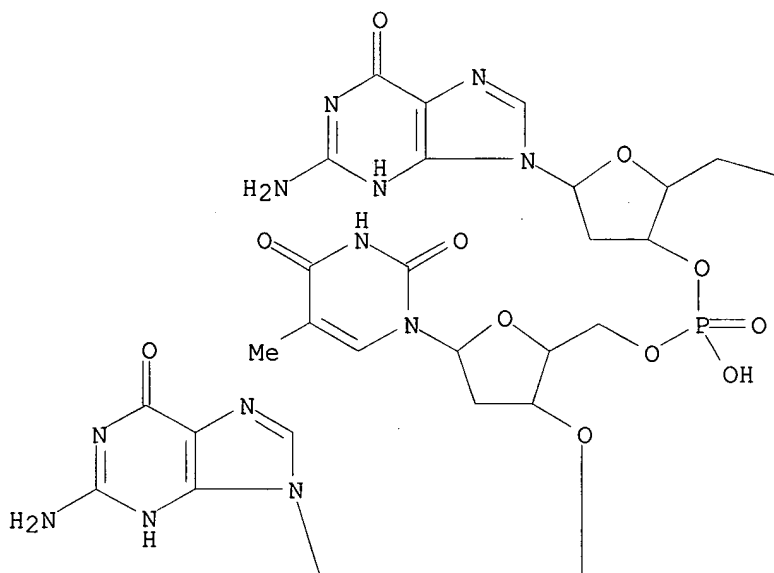
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CRN 212773-09-6

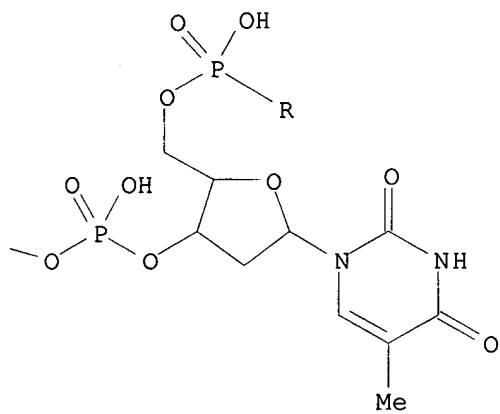
CMF C125 H178 N46 O60 P8 S

CDES \*

PAGE 1-A

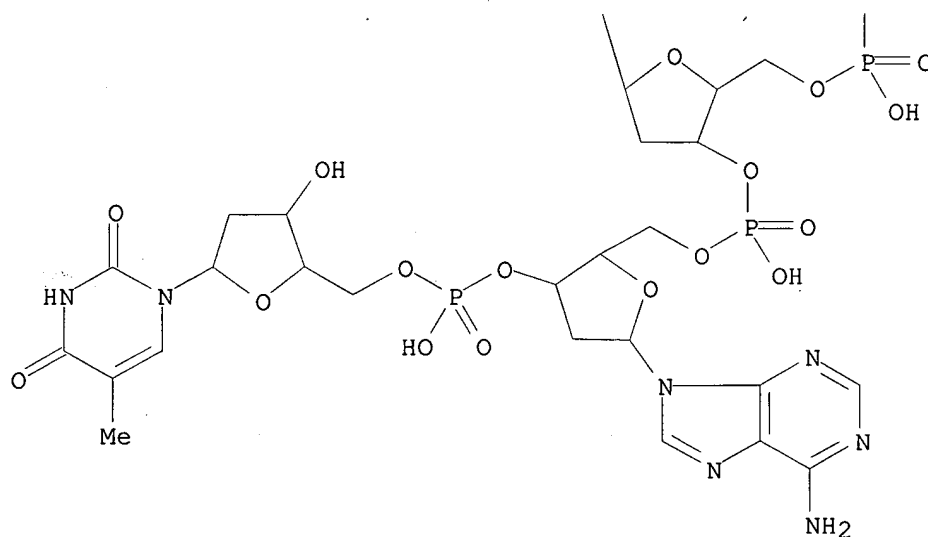


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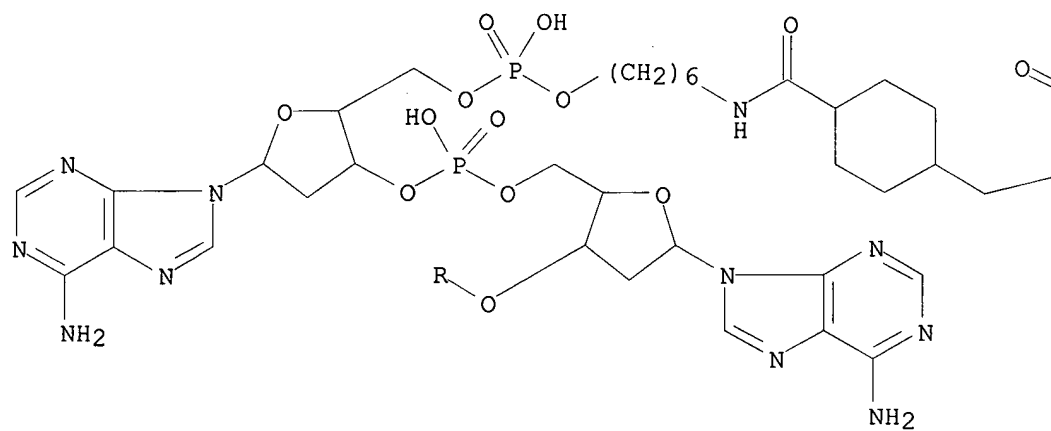




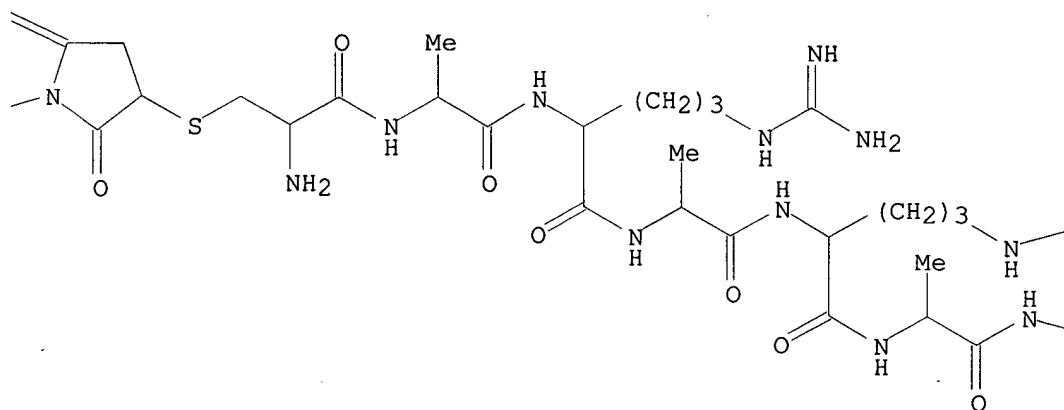
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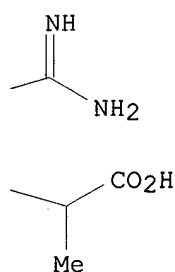
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RN 212903-77-0 HCAPLUS

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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-alanyl-L-arginyl-L-  
arginyl-L-arginyl-L-alanyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

Searched by John Dantzman

308-4488

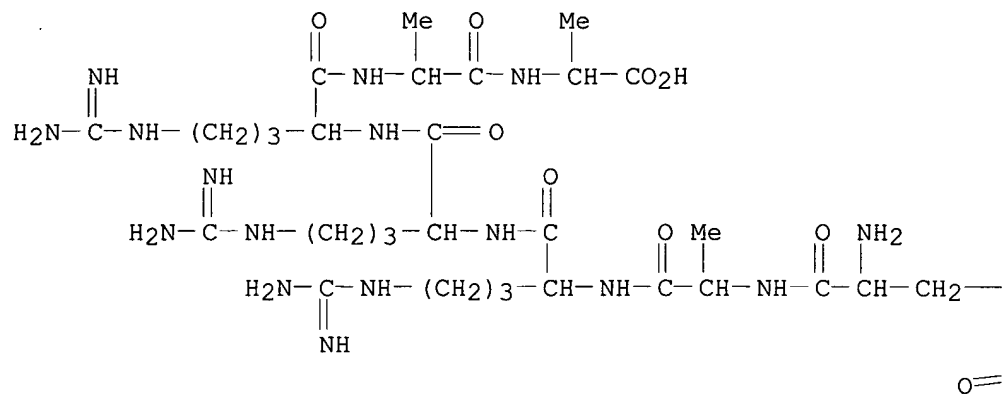
CRN 212780-26-2  
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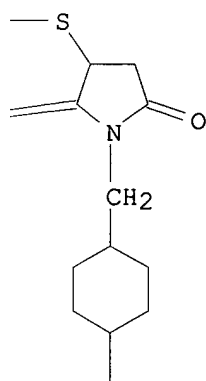
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CRN 212773-10-9  
CMF C128 H185 N49 O60 P8 S  
CDES \*

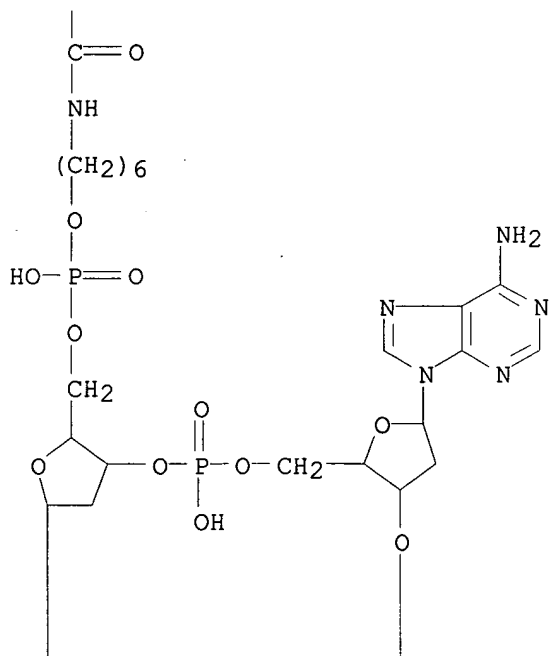
PAGE 1-A



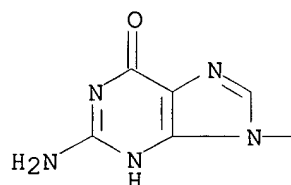
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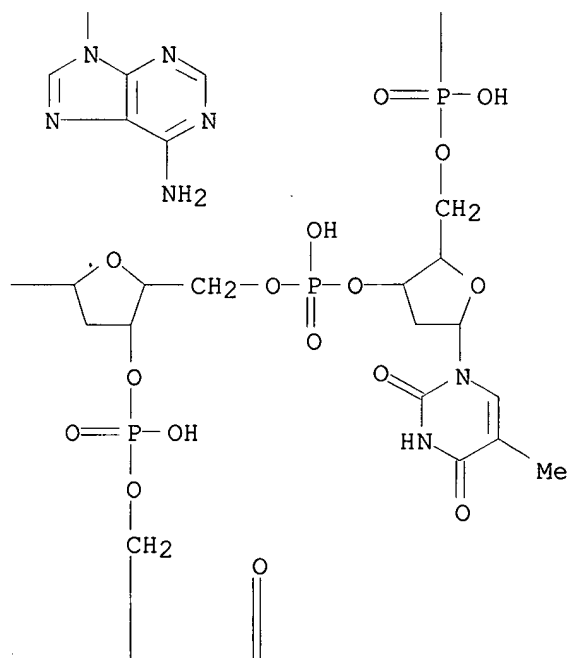
PAGE 2-B



PAGE 3-A



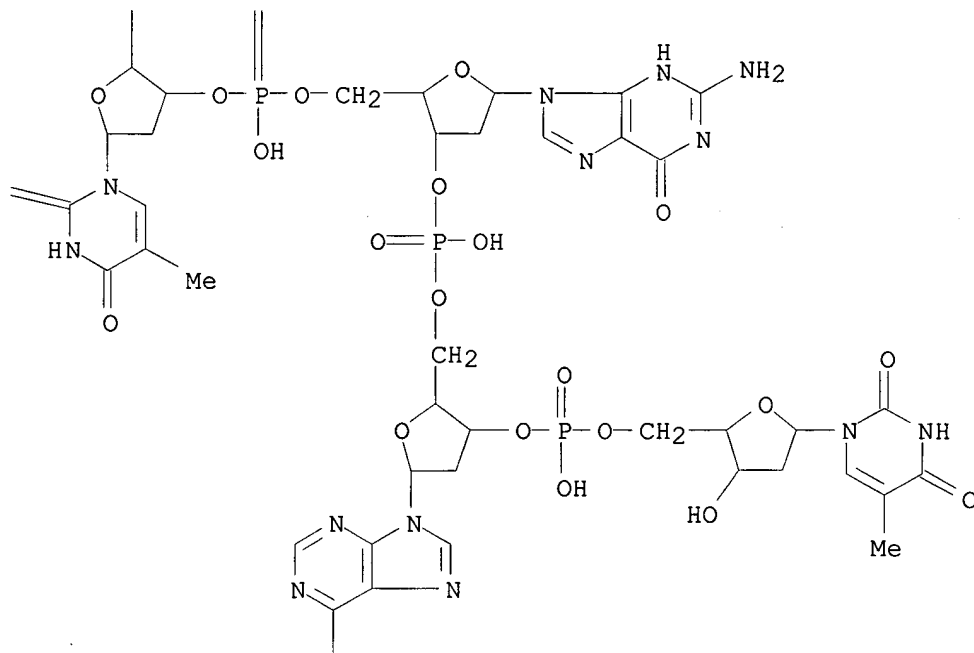
PAGE 3-B



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PAGE 4-B



PAGE 5-B



RN 212903-98-5 HCAPLUS

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2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidiny]-L-cysteiny]-L-arginyl-L-alanyl-L-  
arginyl-L-alanyl-L-arginyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

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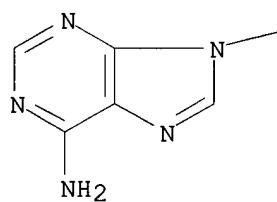
CM 2

Searched by John Dantzman

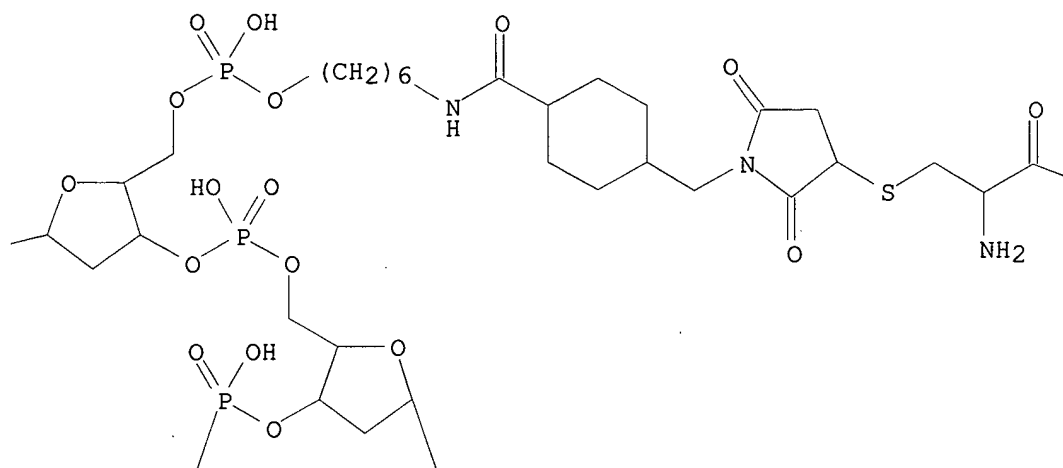
308-4488

CRN 212773-11-0  
CMF C128 H185 N49 O60 P8 S  
CDES \*

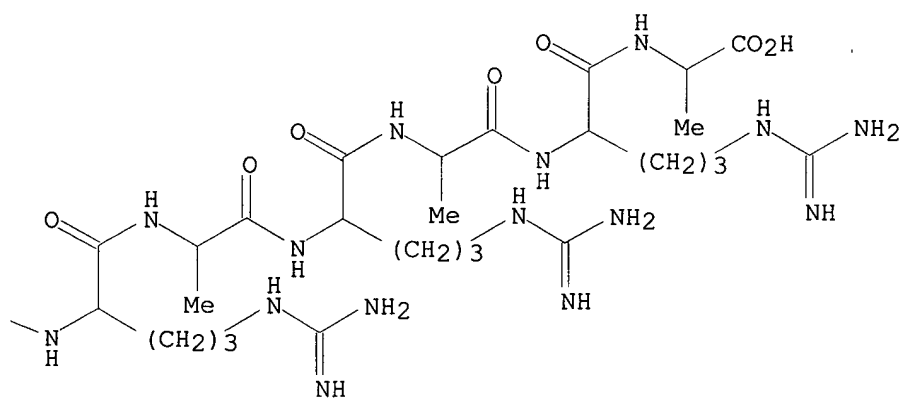
PAGE 1-A



PAGE 1-B

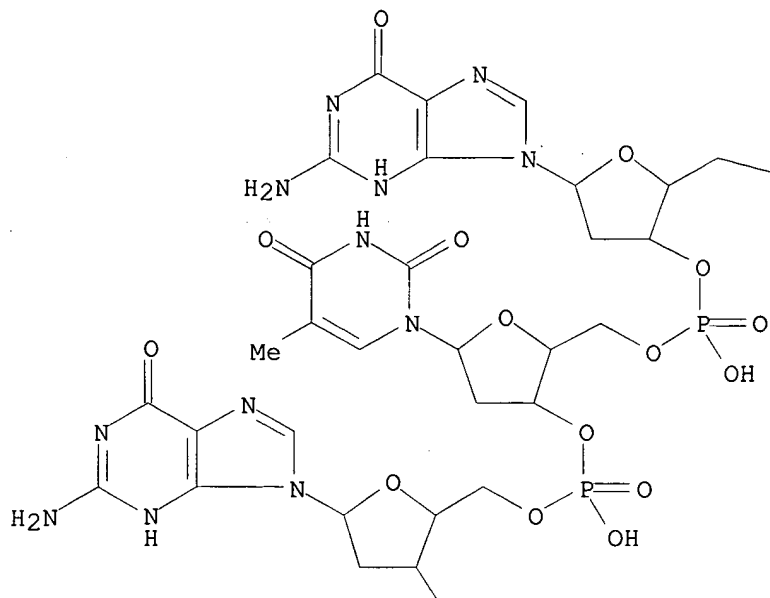


PAGE 1-C

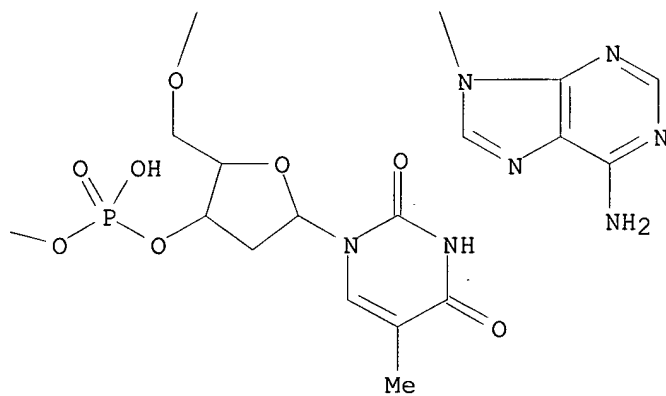




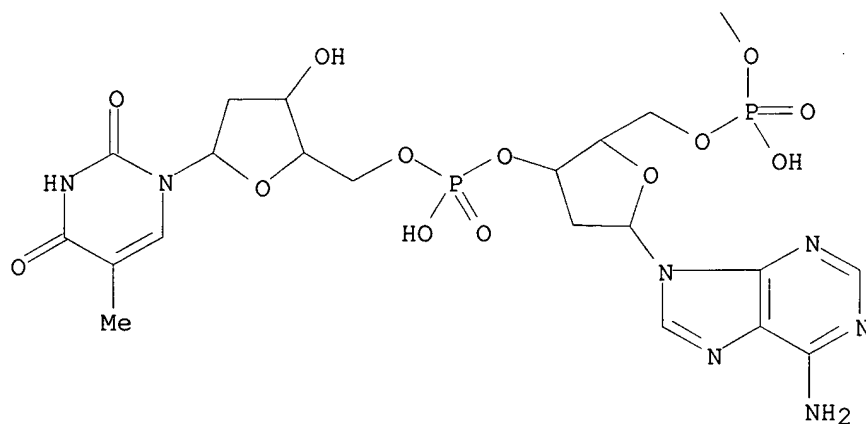
PAGE 2-A



PAGE 2-B



PAGE 3-A



RN 212904-24-0 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteiny-L-alanyl-L-arginyl-L-  
arginyl-L-arginyl-L-arginyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-  
T-A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

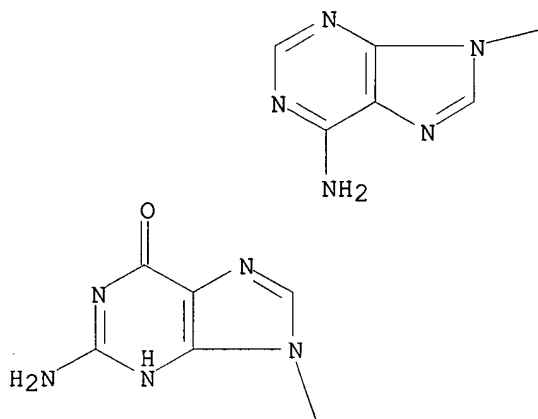
CM 2

CRN 212773-12-1

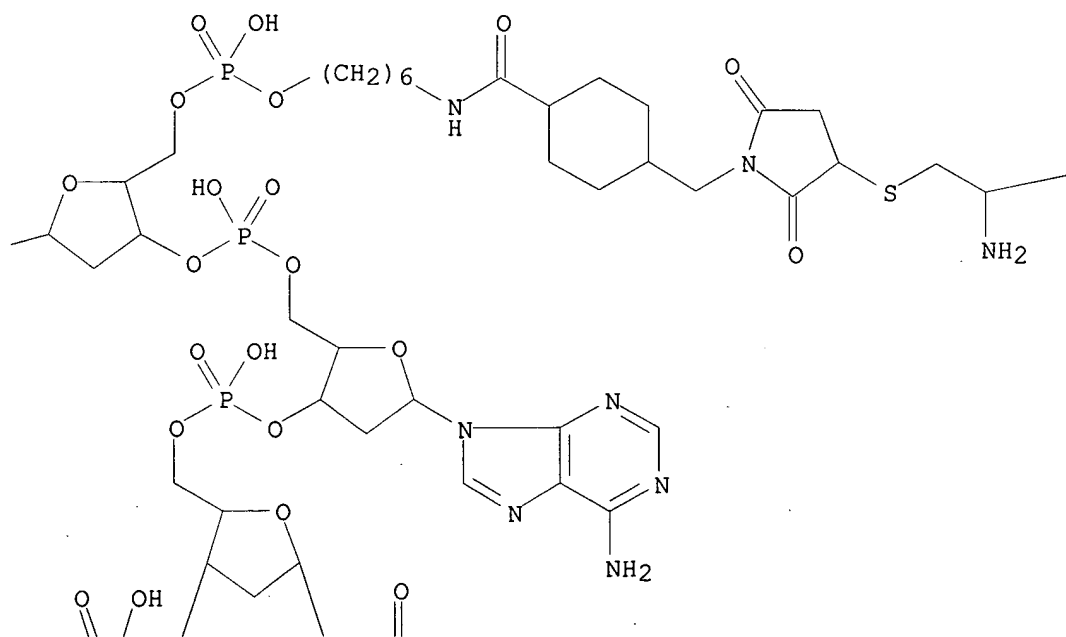
CMF C131 H192 N52 O60 P8 S

CDES \*

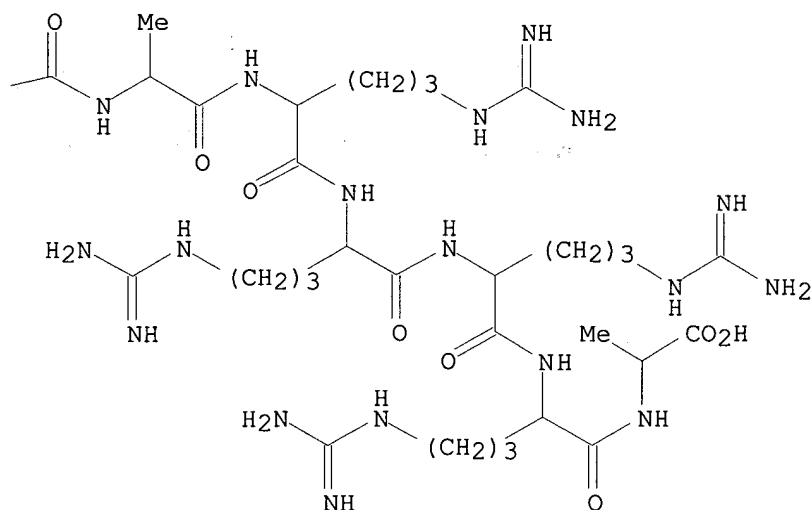
PAGE 1-A



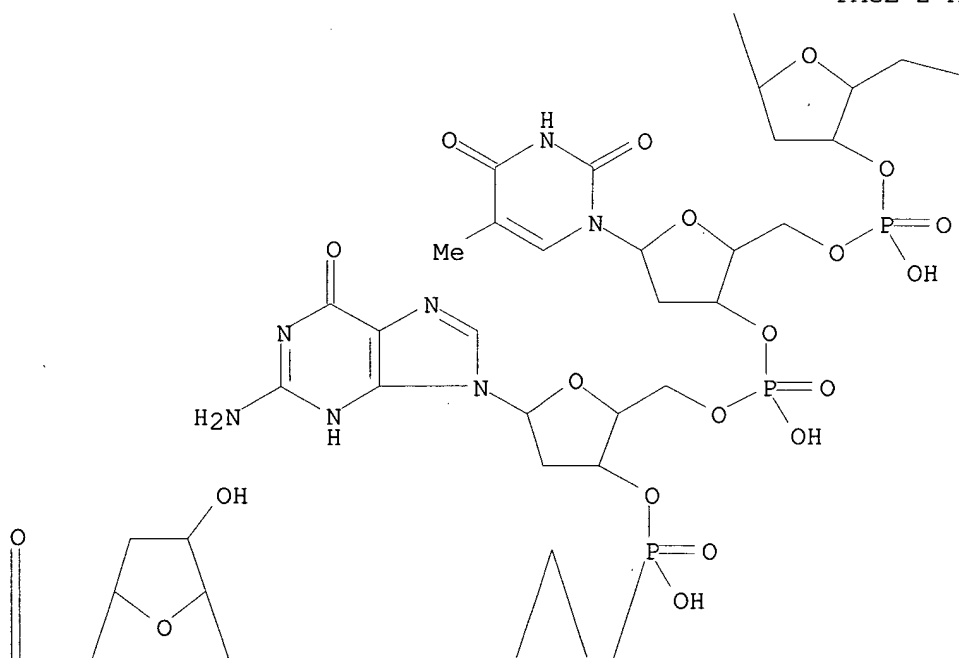
PAGE 1-B



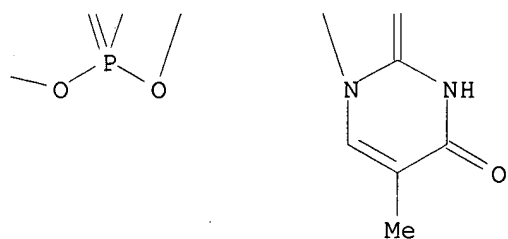
PAGE 1-C



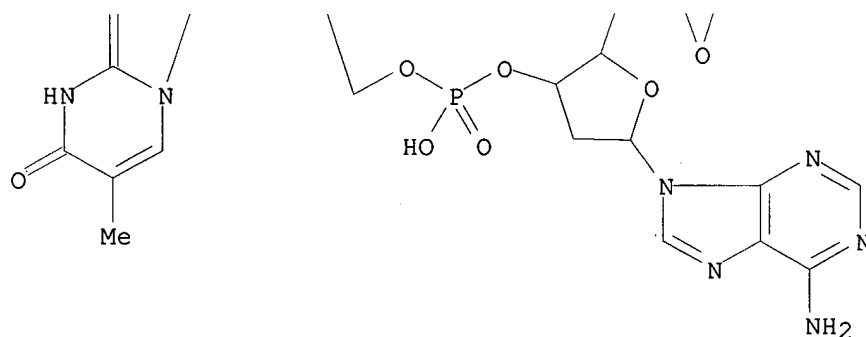
PAGE 2-A



PAGE 2-B



PAGE 3-A



RN 212904-57-9 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-arginyl-L-arginyl-L-  
alanyl-L-arginyl-L-arginyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-  
A-G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

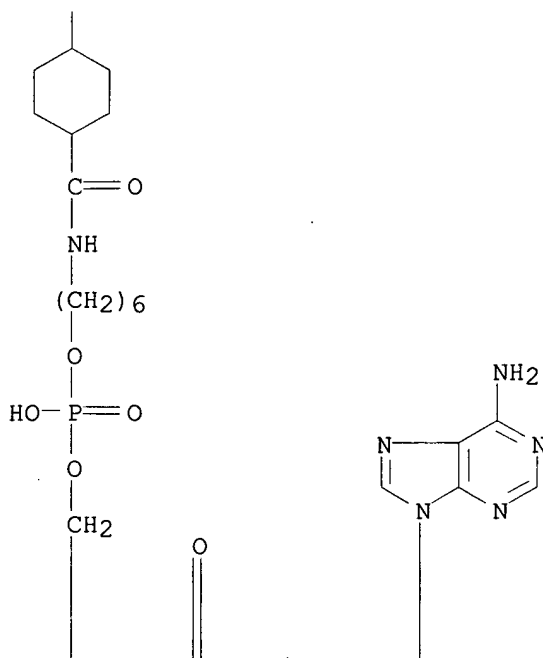
CRN 212773-13-2

CMF C131 H192 N52 O60 P8 S

CDES \*



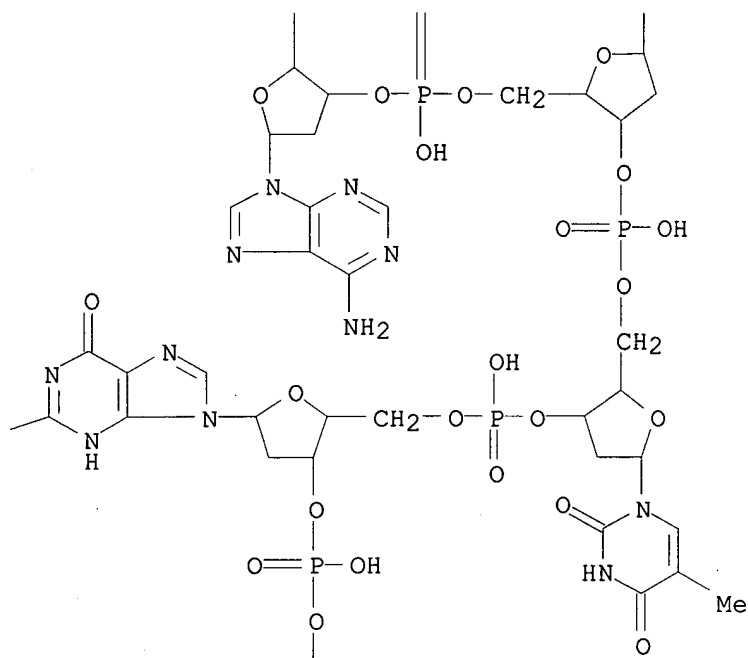
PAGE 2-B



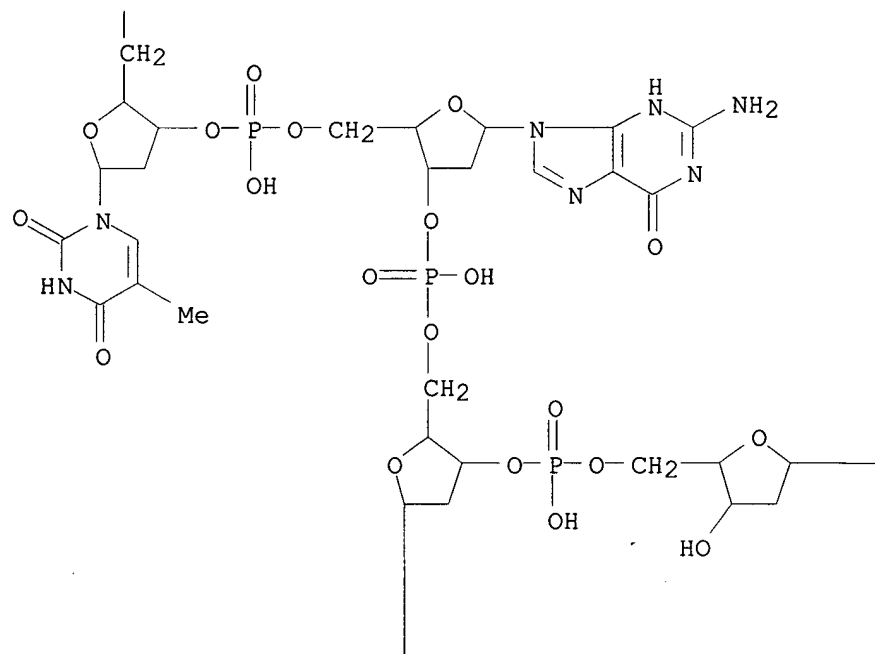
PAGE 3-A

H<sub>2</sub>N

PAGE 3-B

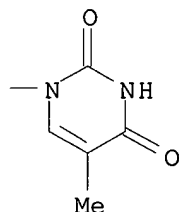


PAGE 4-B

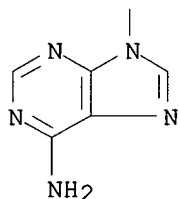




PAGE 4-C



PAGE 5-B



RN 212904-93-3 HCAPLUS  
CN DNA, d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-G), complex with 5'-O-[[ (6-aminohexyl)oxy]hydroxyphosphinyl]-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2  
CMF Unspecified  
CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

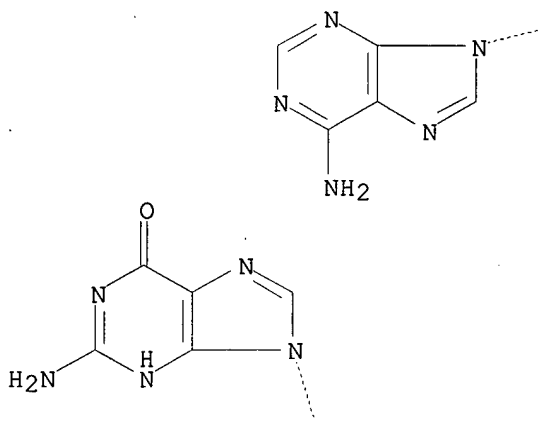
CRN 212759-69-8  
CMF C86 H114 N32 O49 P8

Searched by John Dantzman

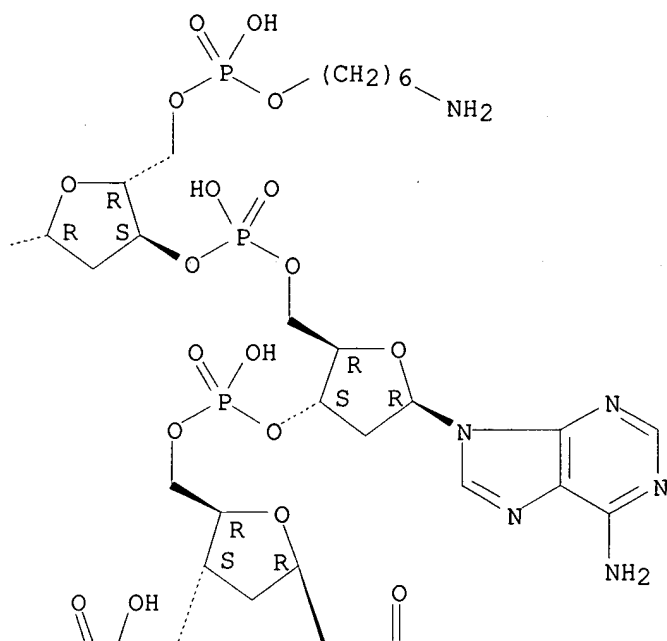
308-4488

Absolute stereochemistry.

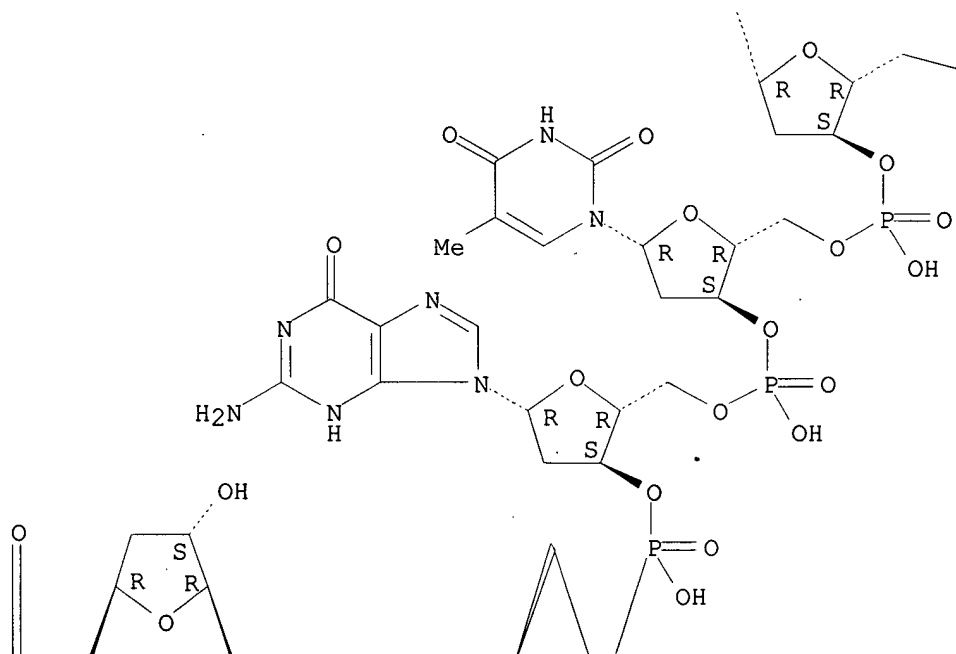
PAGE 1-A



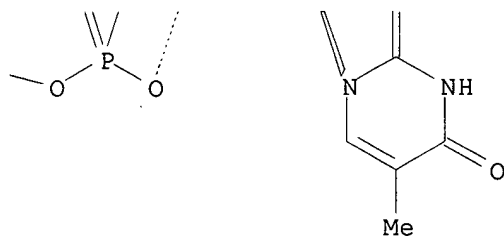
PAGE 1-B



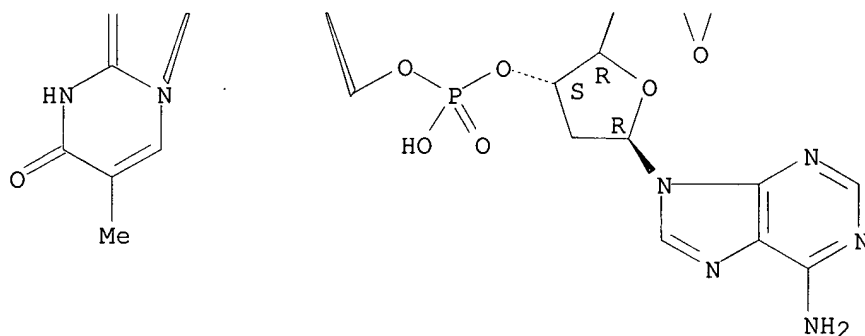
PAGE 2-A



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RN 212905-00-5 HCAPLUS

CN DNA, d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-G), complex with

5'-O-[[[6-[[[4-[(2,5-

dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]hexyl]ox  
y]hydroxyphosphinyl]-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-  
(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-

thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-  
(3'.fwdarw.5')-thymidine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

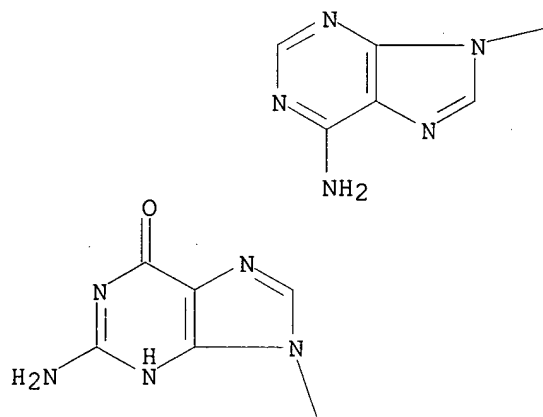
CM 2

CRN 212772-80-0

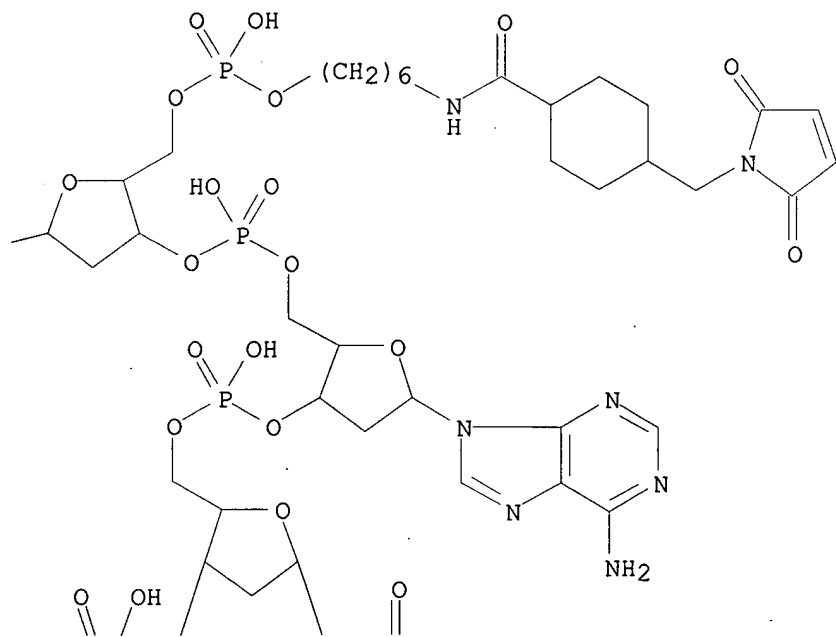
CMF C98 H127 N33 O52 P8

CDES 5:ALL,B-D-ERYTHRO

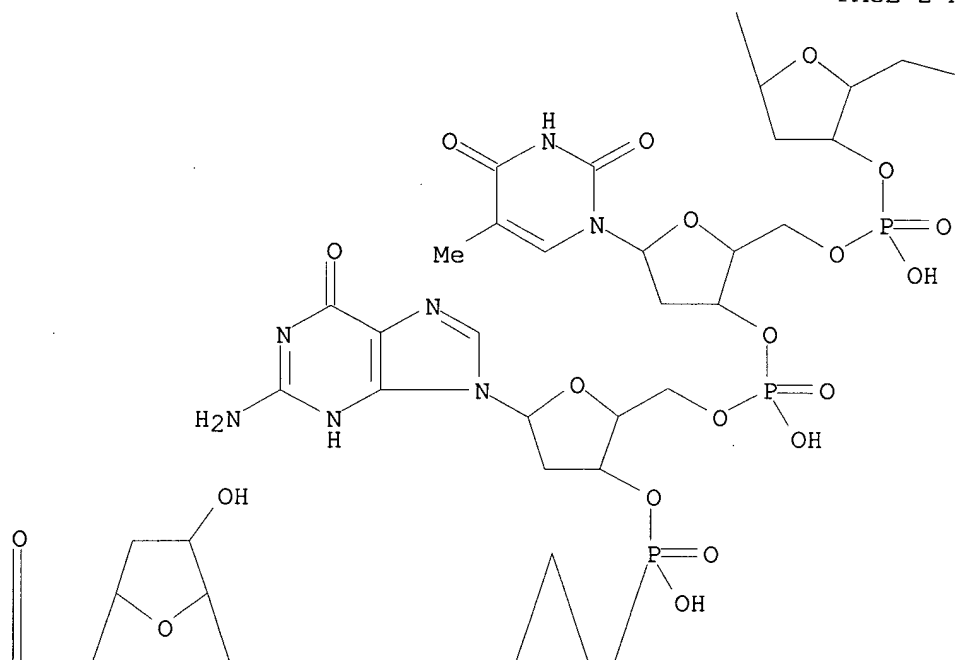
PAGE 1-A



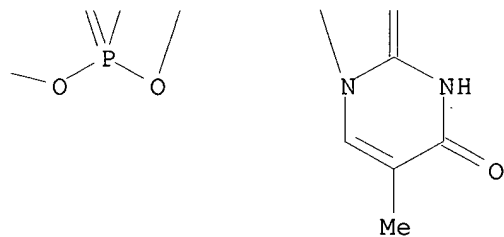
PAGE 1-B



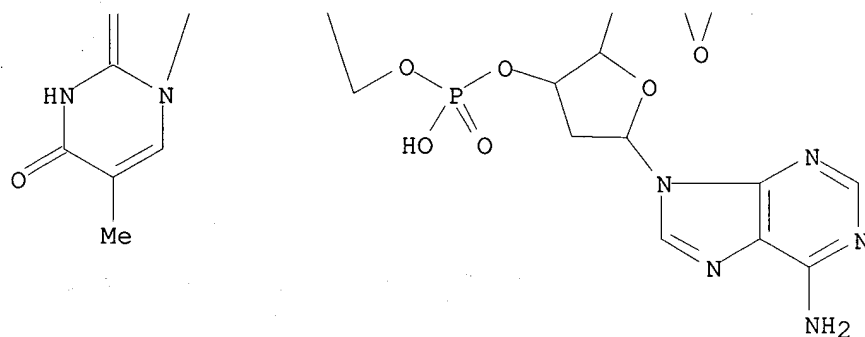
PAGE 2-A



PAGE 2-B



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RN 212953-87-2 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-alanyl-L-lysyl-L-  
lysyl-L-alanyl-L-alanyl-, compd. with DNA

d(A-T-C-A-C-A-T-T-A-C-A-C-C-T-A-  
G) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212780-26-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

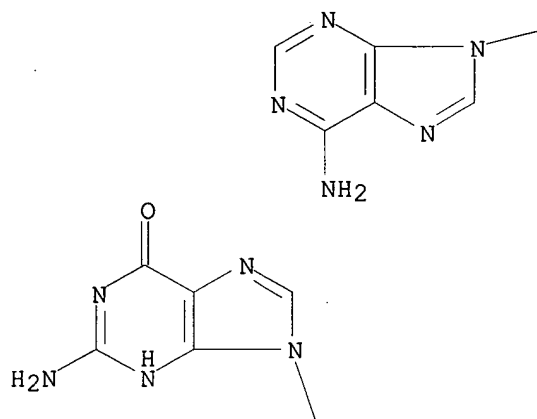
CM 2

CRN 212772-81-1

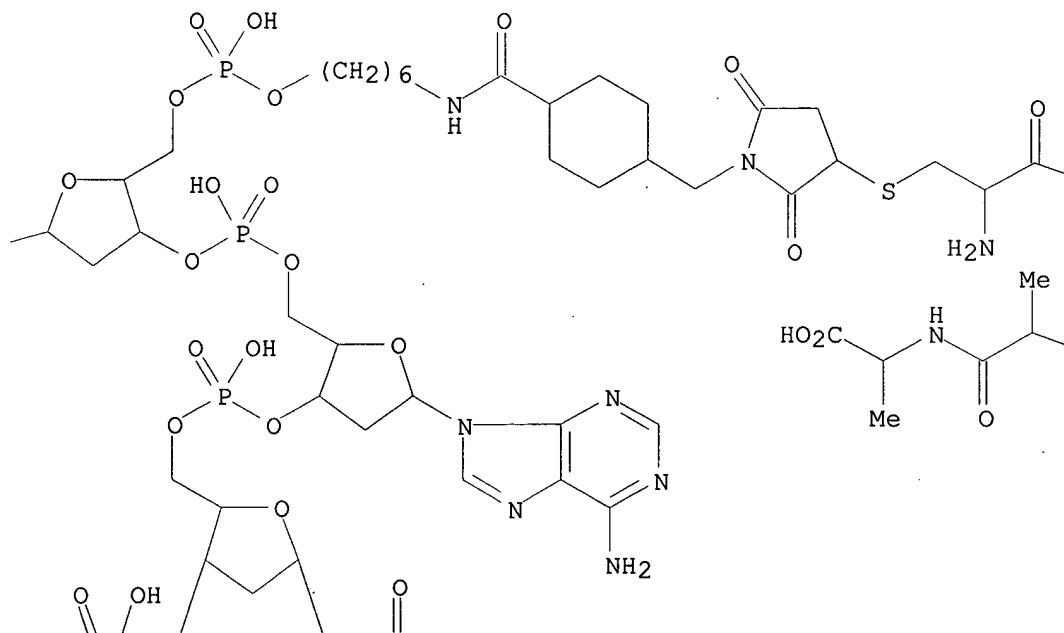
CMF C125 H178 N42 O60 P8 S

CDES \*

PAGE 1-A

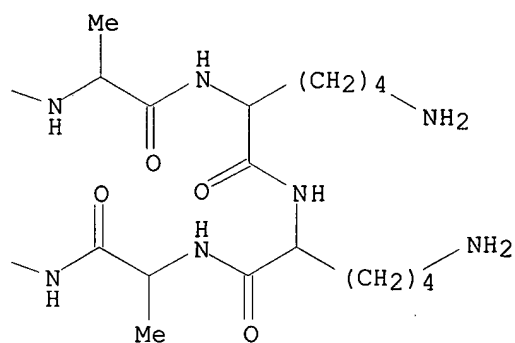


PAGE 1-B

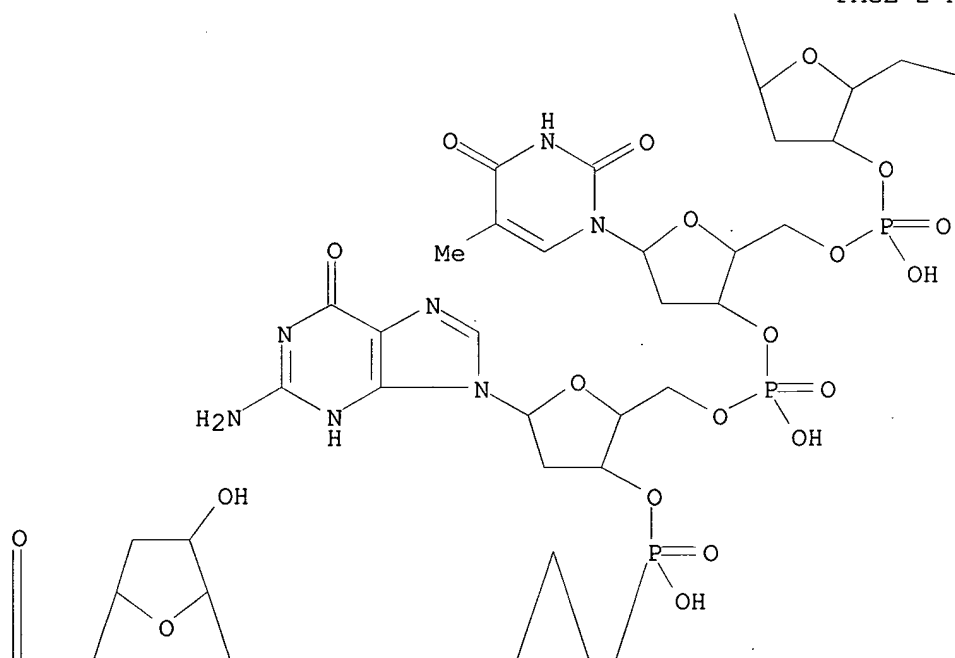




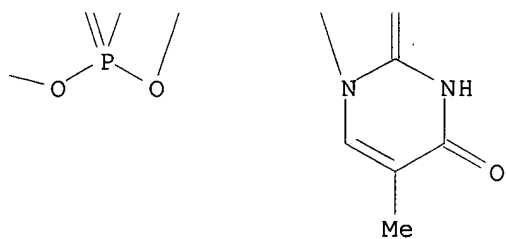
PAGE 1-C



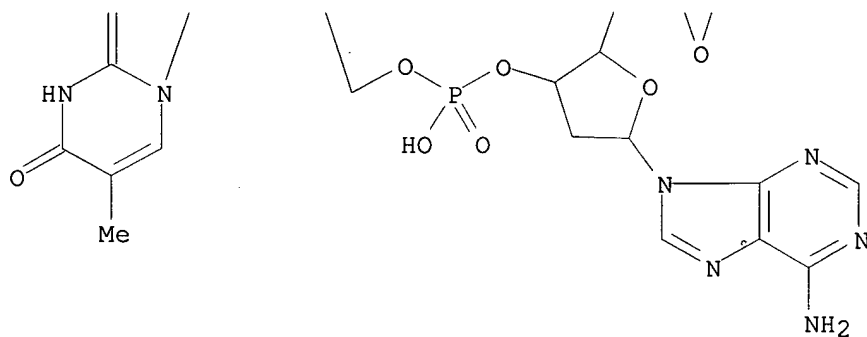
PAGE 2-A



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PAGE 3-A



IT 212759-69-8 212759-70-1

RL: RCT (Reactant)

(prepn. and hybridization anal. of small peptide-oligonucleotide conjugate **combinatorial library**)

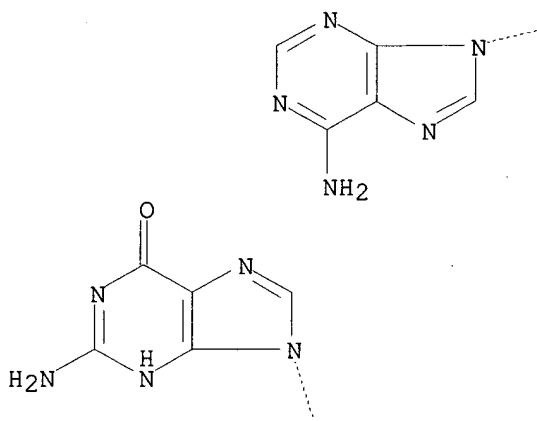
RN 212759-69-8 HCAPLUS

CN Thymidine, 5'-O-[[[(6-aminoheptyl)oxy]hydroxyphosphinyl]-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-

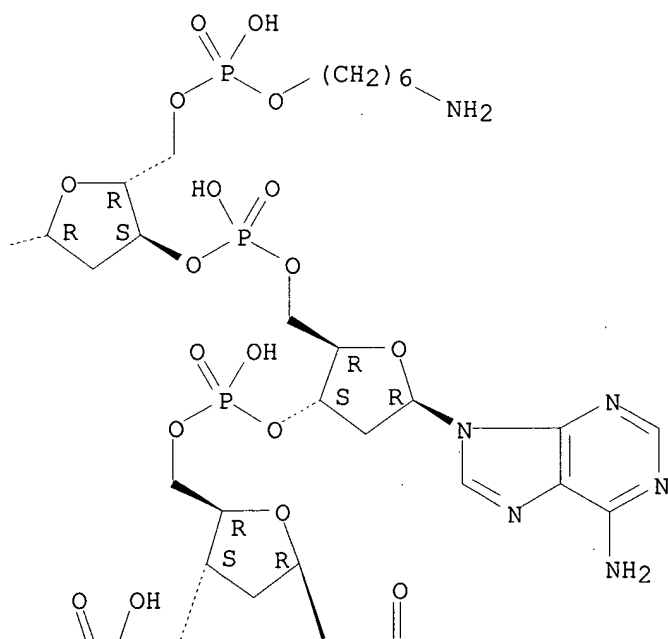
2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

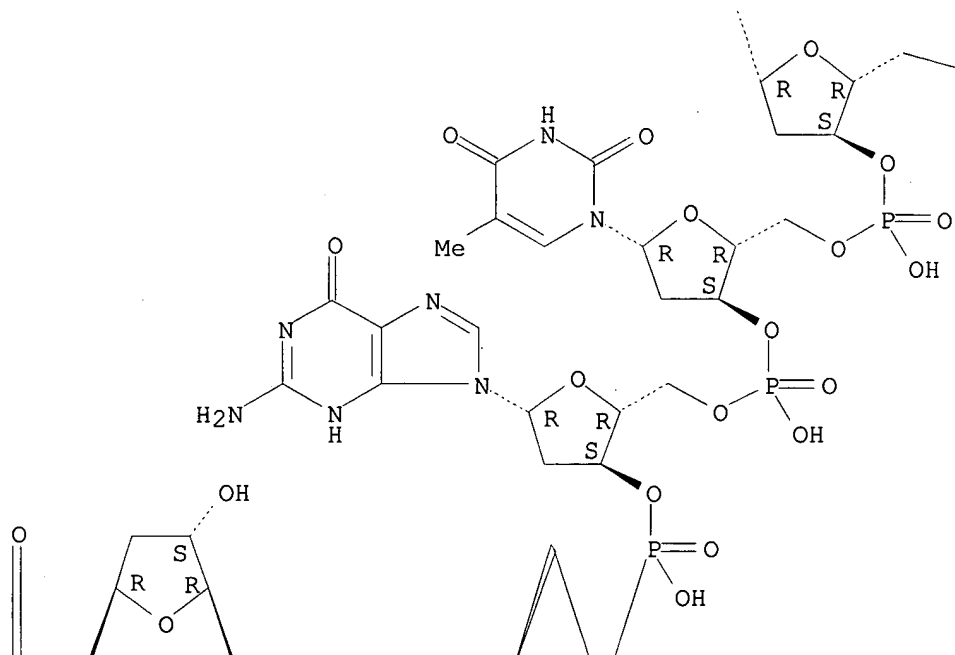
PAGE 1-A



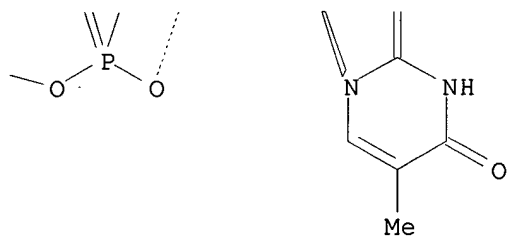
PAGE 1-B



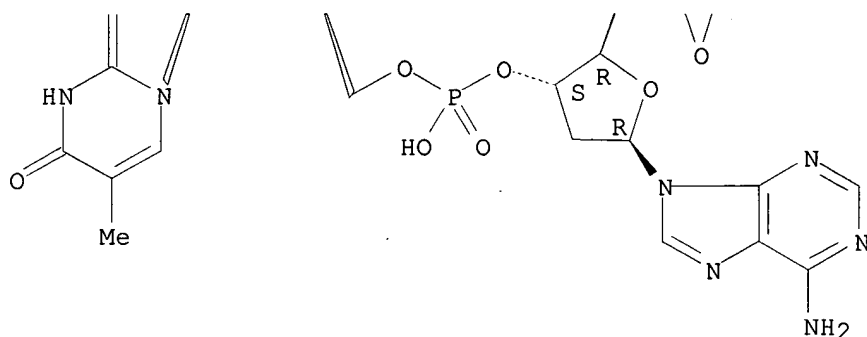
PAGE 2-A



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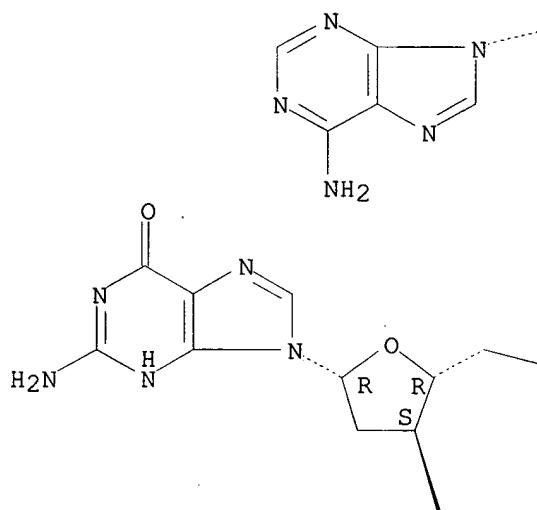
RN 212759-70-1 HCAPLUS

CN Thymidine,

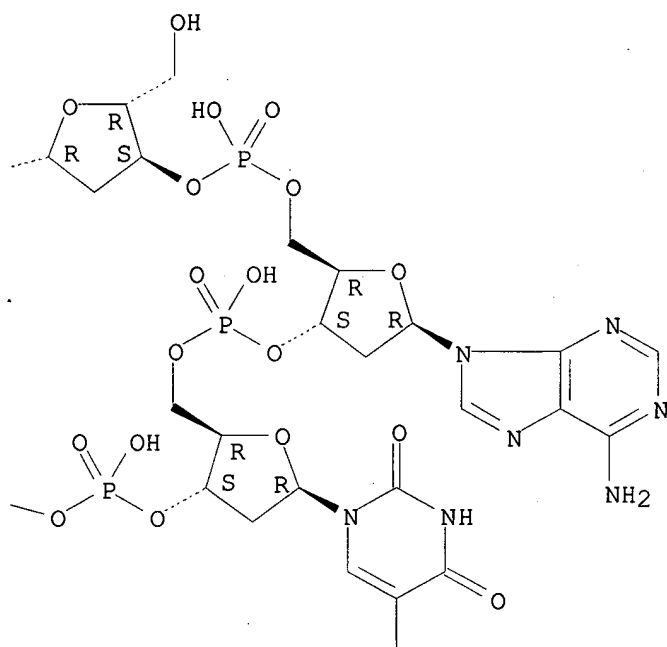
2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-  
 thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-  
 (3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-  
 (3'.fwdarw.5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

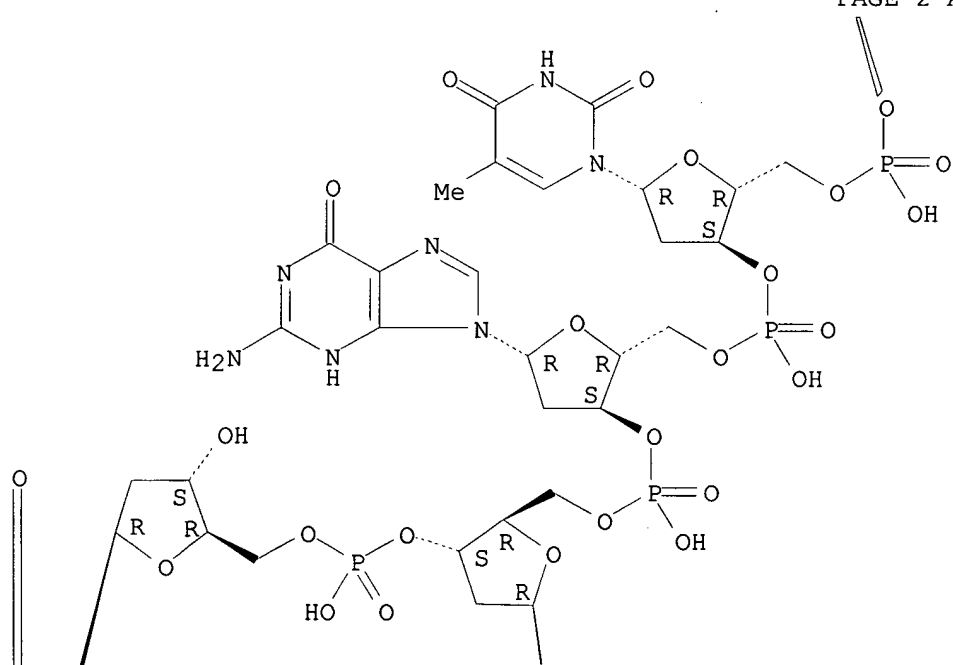
PAGE 1-A



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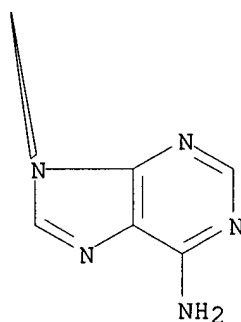
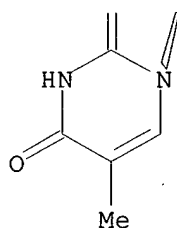
PAGE 2-A



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PAGE 3-A



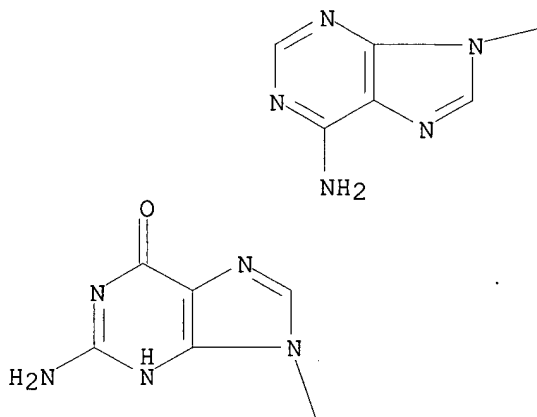
IT 212772-80-0P 212772-81-1P 212772-83-3P  
 212772-84-4P 212772-85-5P 212772-86-6P  
 212772-87-7P 212772-88-8P 212772-89-9P  
 212772-91-3P 212772-92-4P 212772-93-5P  
 212772-94-6P 212772-95-7P 212772-96-8P  
 212772-98-0P 212772-99-1P 212773-00-7P  
 212773-01-8P 212773-02-9P 212773-04-1P  
 212773-05-2P 212773-06-3P 212773-07-4P  
 212773-08-5P 212773-09-6P 212773-10-9P  
 212773-11-0P 212773-12-1P 212773-13-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and hybridization anal. of small peptide-oligonucleotide  
 conjugate **combinatorial library**)

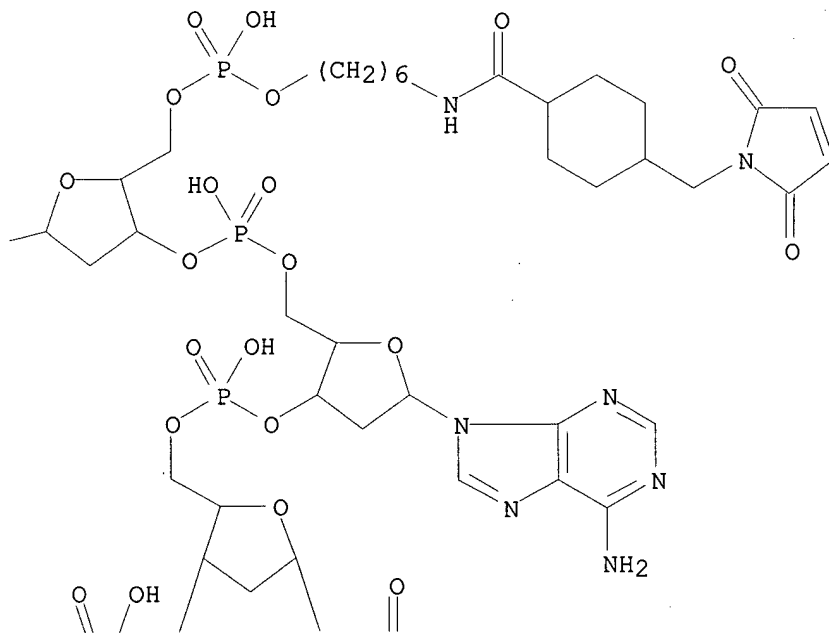
RN 212772-80-0 HCAPLUS

CN Thymidine, 5'-O-[[[6-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]hexyl]oxy]hydroxyphosphinyl]-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')- (9CI)  
 (CA INDEX NAME)

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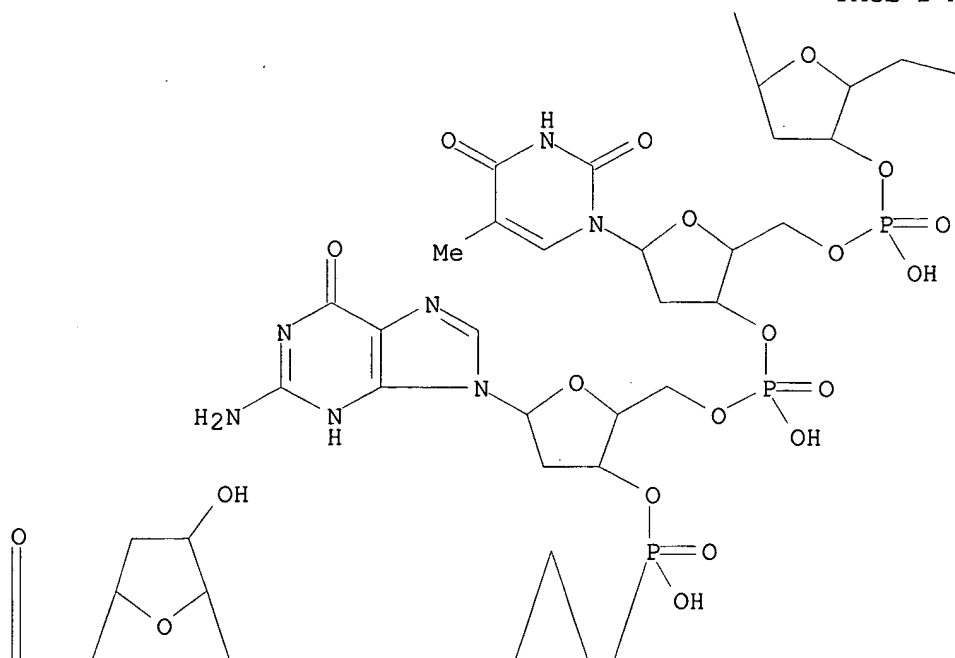


PAGE 1-B

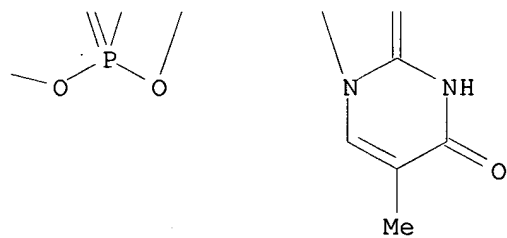




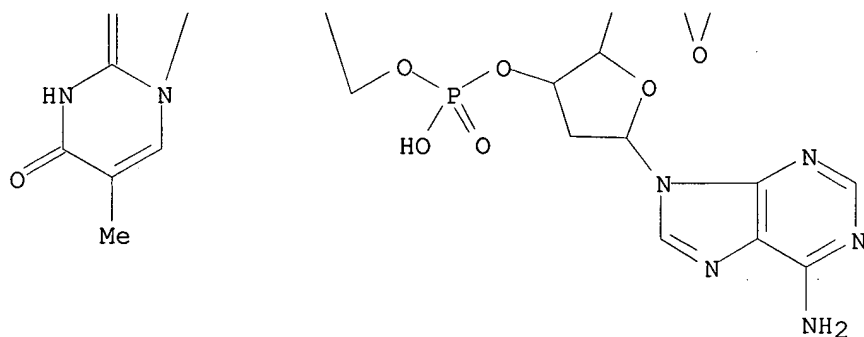
PAGE 2-A



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PAGE 3-A

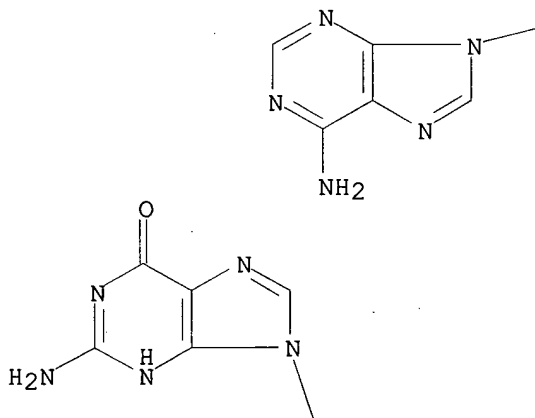


RN 212772-81-1 HCAPLUS

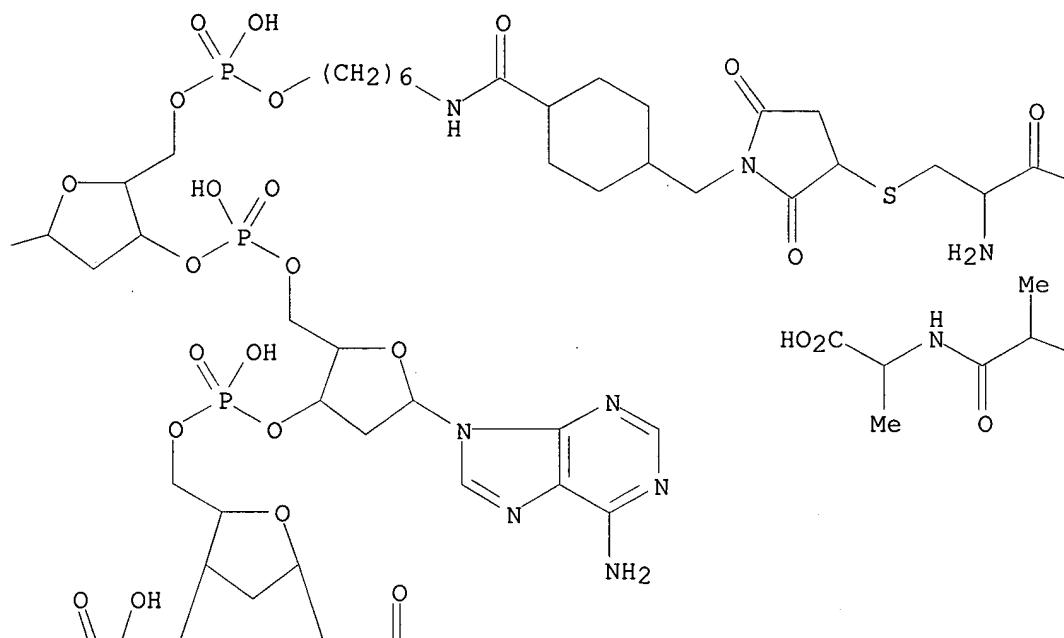
CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidyl-5'.fwdarw.3')-2'-deoxyadenyl-5'.fwdarw.3')-2'-deoxyguany-5'.fwdarw.3')-thymidyl-5'.fwdarw.3')-2'-deoxyguany-5'.fwdarw.3')-thymidyl-5'.fwdarw.3')-

2'-deoxyadenyl-5'.fwdarw.3')-2'-deoxy-5'-adenyl]oxy]hexyl]amino]carbo-  
 nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-alanyl-L-lysyl-L-  
 lysyl-L-alanyl-L-alanyl- (9CI) (CA INDEX NAME)

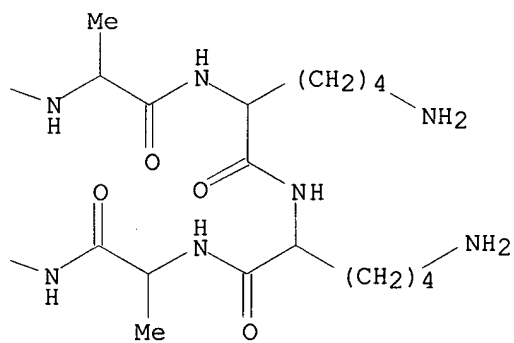
PAGE 1-A



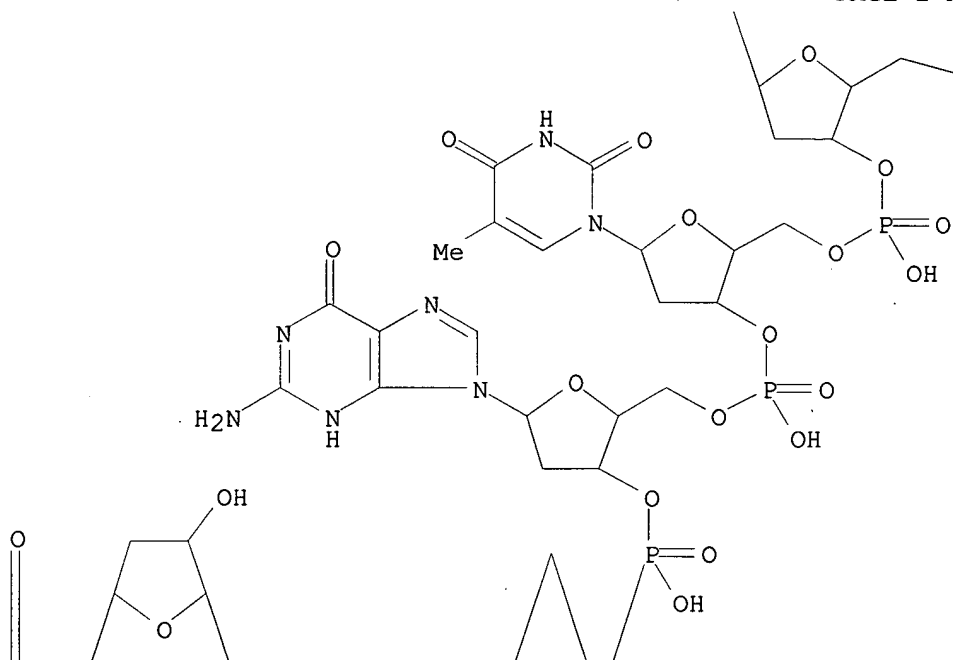
PAGE 1-B



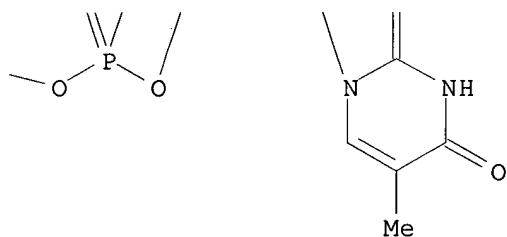
PAGE 1-C



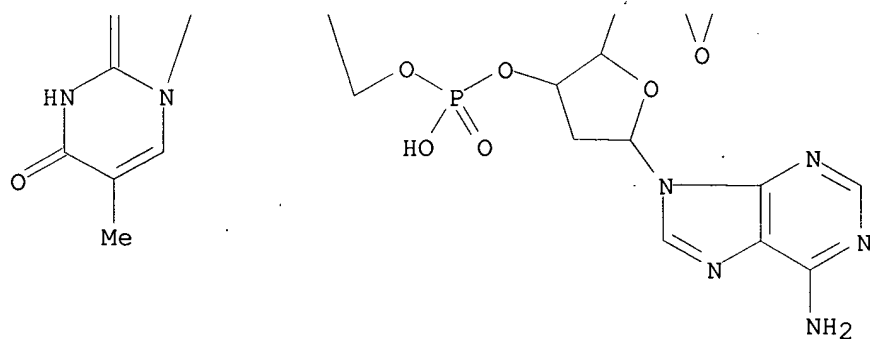
PAGE 2-A



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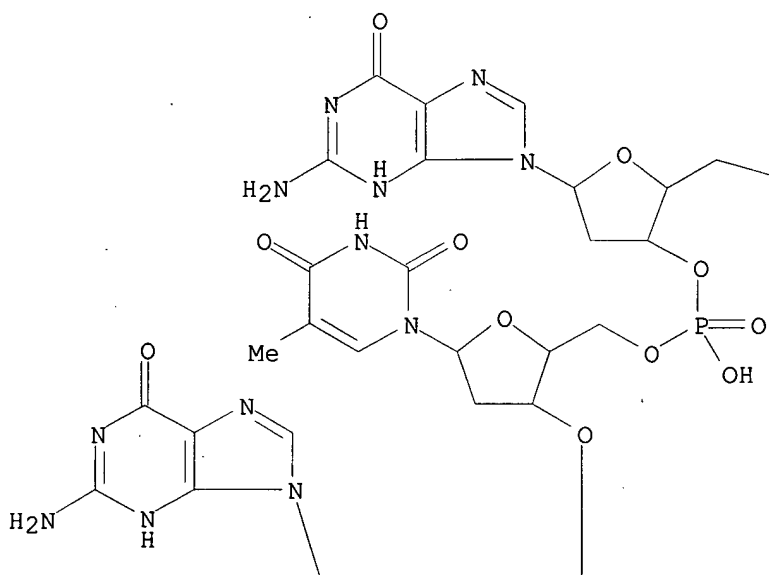
PAGE 3-A



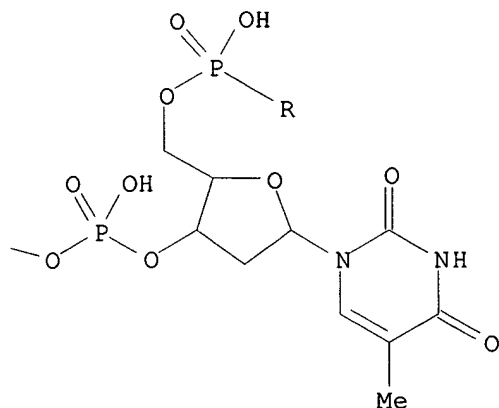
RN 212772-83-3 HCAPLUS

CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-  
deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-  
(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-  
2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-alanyl-L-lysyl-L-  
alanyl-L-lysyl-L-alanyl- (9CI) (CA INDEX NAME)

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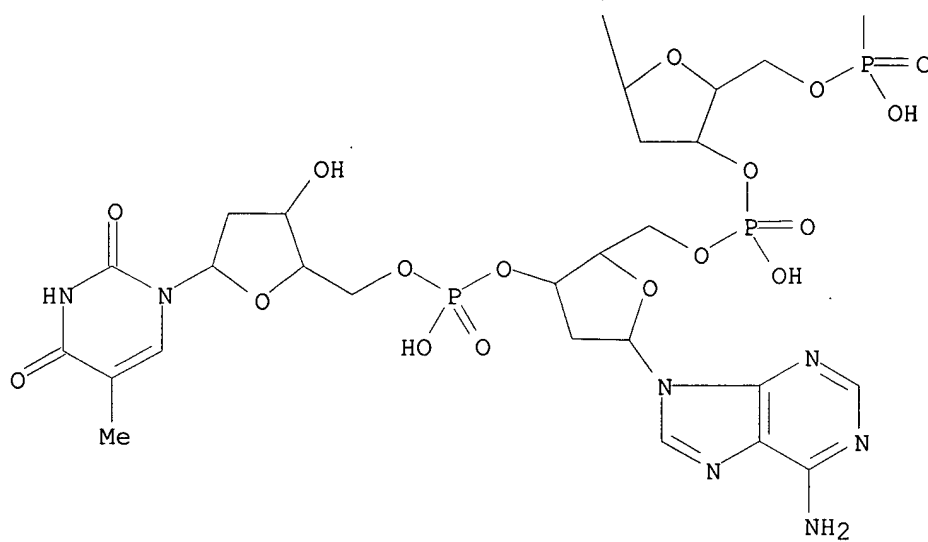
PAGE 1-B



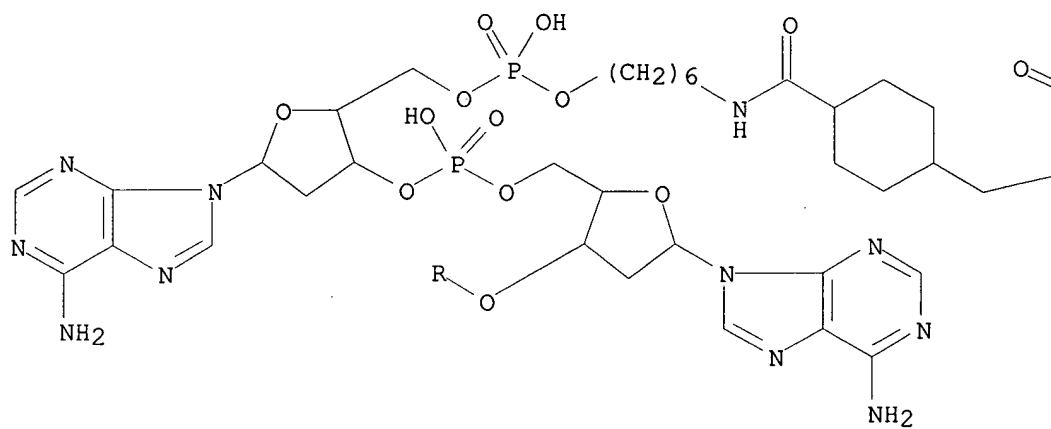
Searched by John Dantzman

308-4488

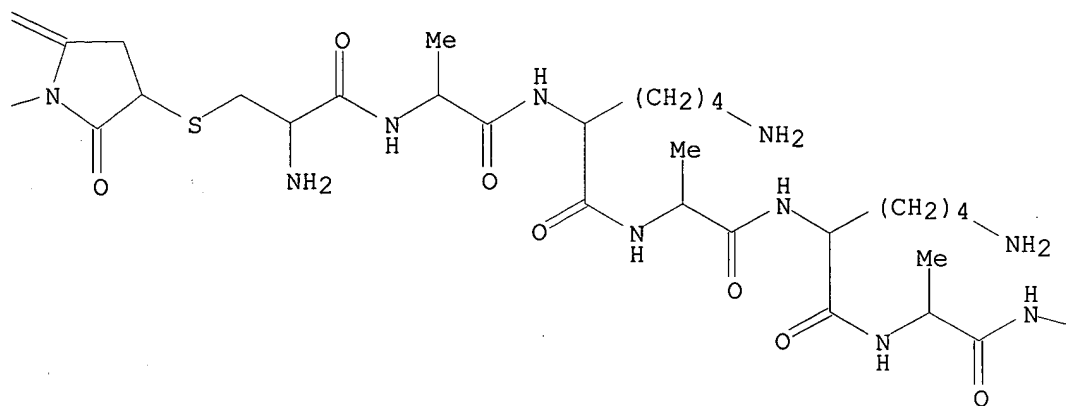
PAGE 2-A



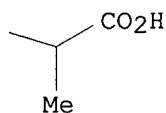
PAGE 3-A



PAGE 3-B



PAGE 3-C

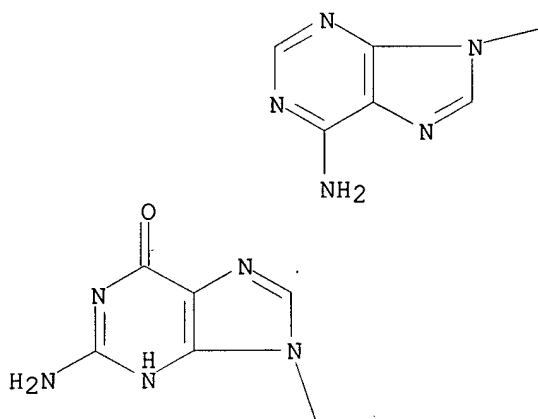


RN 212772-84-4 HCAPLUS

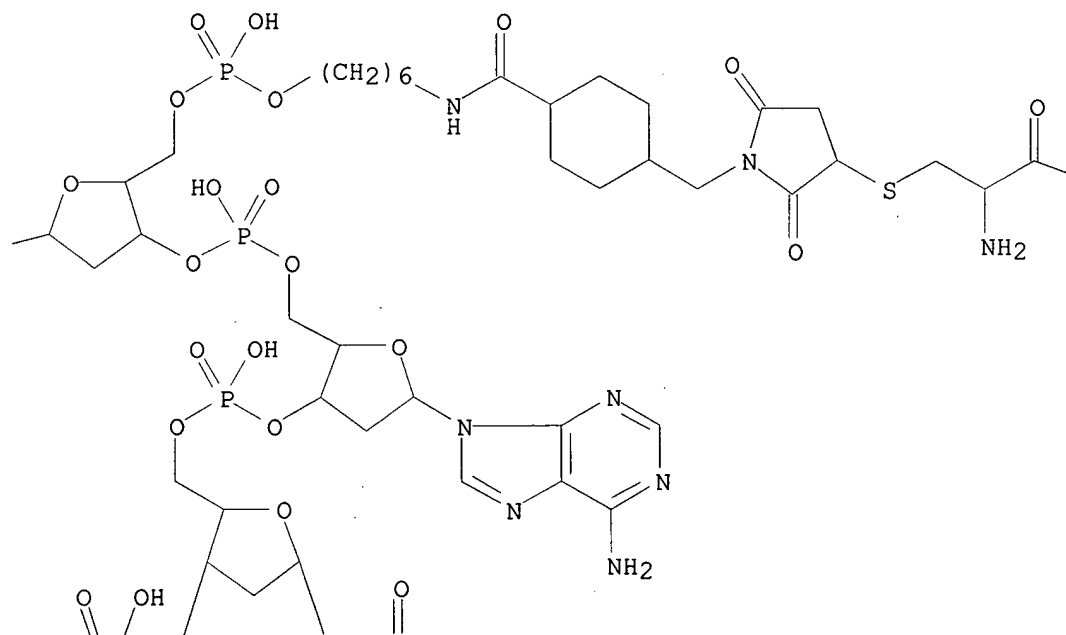
CN L-Alanine, S-[2,5-dioxo-1-[[4-[[[6-[(thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-

2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-5'-adenylyl)oxy]hexyl]amino]carbo  
nyl]cyclohexyl]methyl]-3-pyrrolidinyl]-L-cysteinyl-L-alanyl-L-lysyl-L-  
lysyl-L-lysyl-L-alanyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



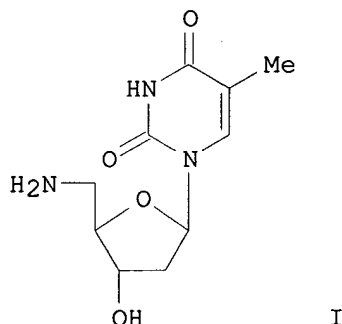


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u

=> d bib abs hitstr 144 13

L44 ANSWER 13 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1998:355685 HCAPLUS  
DN 129:136468  
TI A convenient synthesis of 5'-amino-5'-deoxythymidine and preparation of peptide-DNA hybrids  
AU Tetzlaff, Charles N.; Schwöpe, Ina; Bleczyński, Colleen F.; Steinberg, Joshua A.; Richert, Clemens  
CS Dep. Chem., Tufts Univ., Medford, MA, 02155, USA  
SO Tetrahedron Lett. (1998), 39(24), 4215-4218  
CODEN: TELEAY; ISSN: 0040-4039  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
OS CASREACT 129:136468  
GI



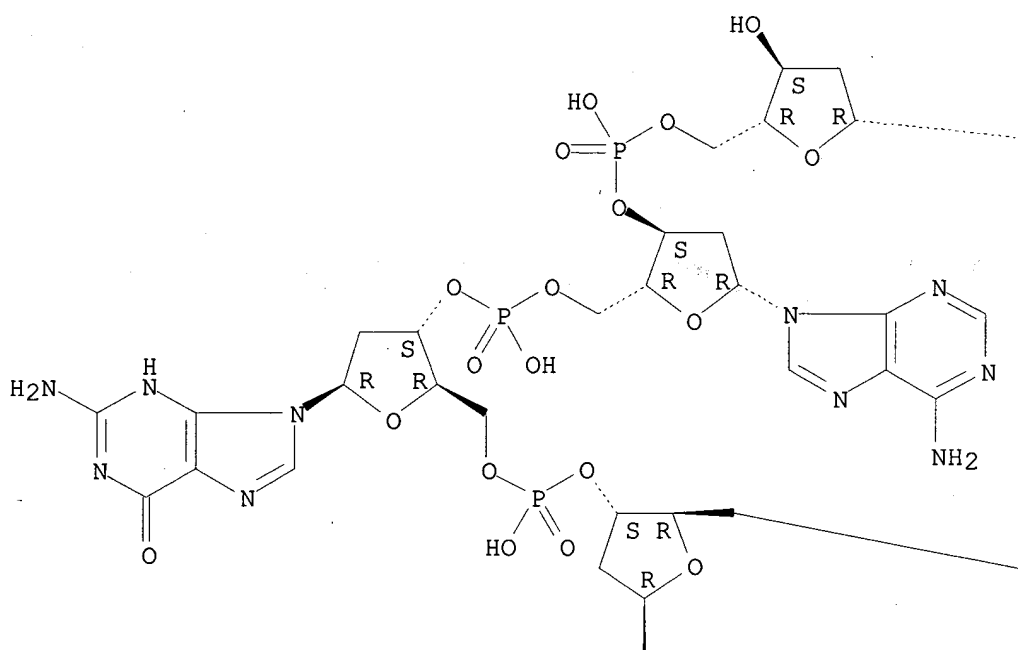
AB 5'-Amino-5'-deoxythymidine (I) was prepd. from thymidine in two steps and converted to its known 5'-methoxytrityl-protected 3'-phosphoramidite building block for DNA assembly on solid supports. Using this building block, peptide-DNA hybrids were synthesized in stepwise manner or via fragment condensation, both as single compds. and as small combinatorial libraries.

IT **210490-69-ODP**, dipeptide-DNA conjugate **combinatorial libraries** contg.  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(a convenient synthesis of aminodeoxythymidine and prepn. of peptide-DNA hybrids)

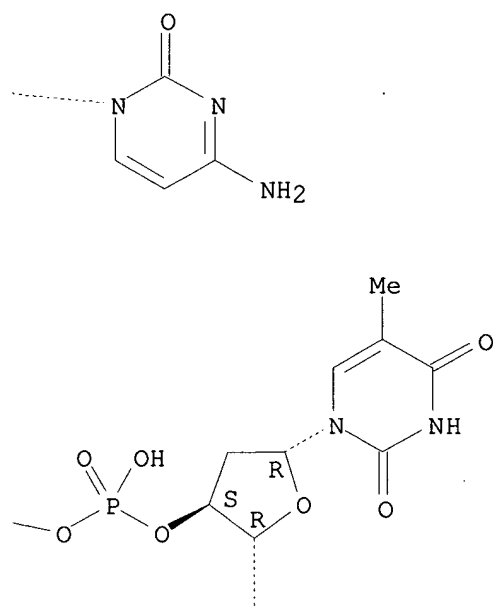
RN 210490-69-0 HCAPLUS  
CN Cytidine, 5'-[[ (2S)-2-amino-3-(1H-indol-3-yl)-1-oxopropyl]amino]-5'-deoxythymidyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-thymidyl-(3'.fwdarw.5')-thymidyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

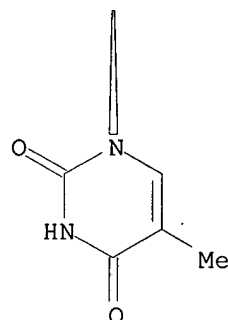
PAGE 1-A



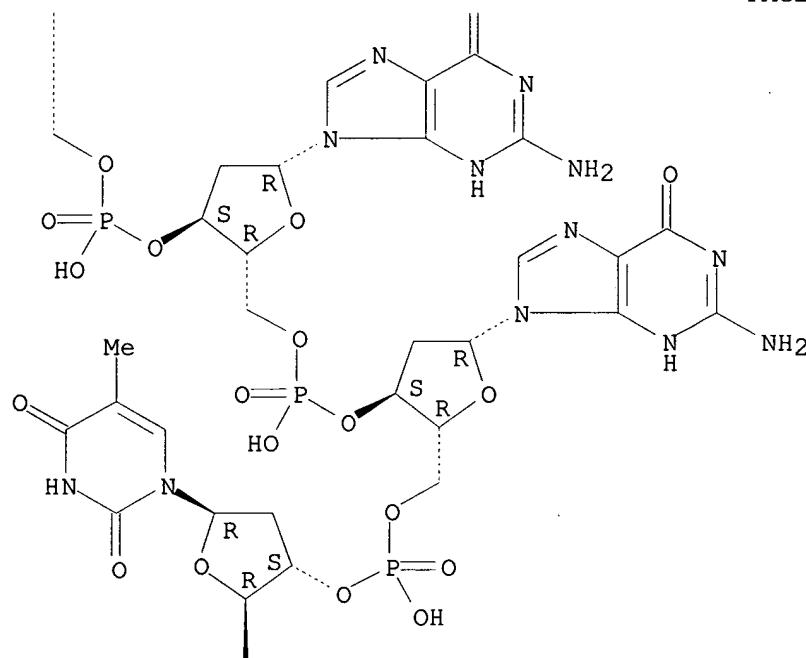
PAGE 1-B



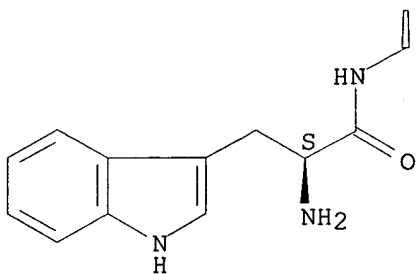
PAGE 2-A



PAGE 2-B



PAGE 3-B

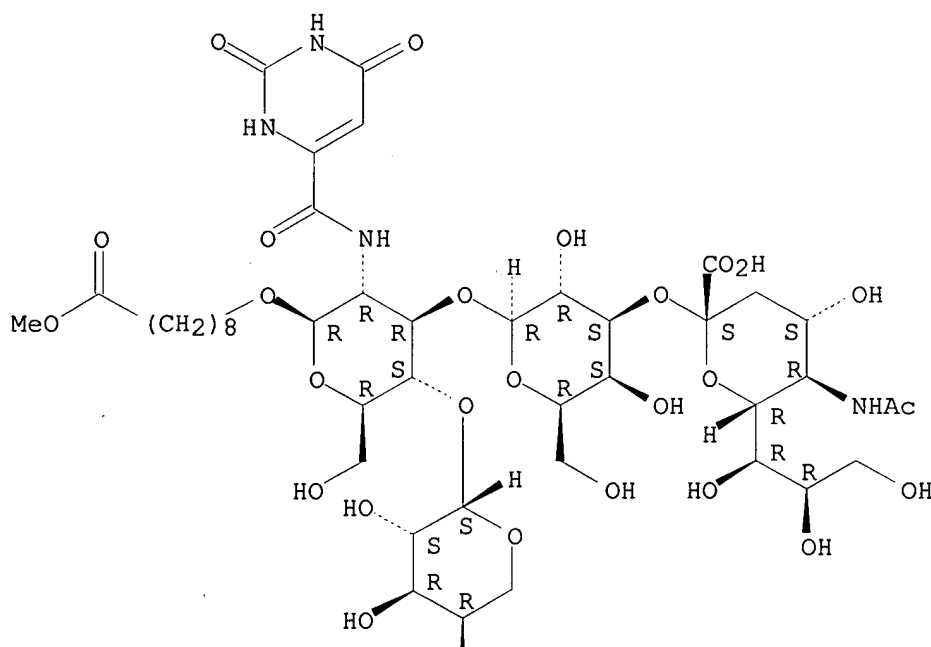


=> d bib abs hitstr 144 14

L44 ANSWER 14 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1998:250013 HCAPLUS  
DN 128:321839  
TI Enzymic synthesis of sialyl-Lewisa-libraries with two non-natural  
monosaccharide units  
AU Baisch, Gabi; Ohrlein, Reinhold; Streiff, Markus; Kolbinger, Frank  
CS Novartis Pharma AG, Basel, CH-4002, Switz.  
SO Bioorg. Med. Chem. Lett. (1998), 8(7), 755-758  
CODEN: BMCLE8; ISSN: 0960-894X  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
AB A series of sialylated type-I sugars, which have the natural N-acetyl  
group of the glucosamine moiety replaced by a wide range of amides, is  
incubated with recombinant fucosyl-transferase III and non-natural  
guanosine-diphosphate activated donor-sugars. Surprisingly, the enzyme  
tolerates the simultaneous alterations on the donor and acceptor to form  
a wide array of sialyl-Lewisa-analogs.  
IT 194603-92-4P  
RL: BPR (Biological process); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation); PROC (Process)  
(enzymic synthesis of sialyl-Lewis libraries with two  
non-natural monosaccharide units)  
RN 194603-92-4 HCAPLUS  
CN Nonanoic acid,  
9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-  
D-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-arabinopyranosyl-(1.fwdarw.4)]-  
2-deoxy-2-[[ (1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinyl)carbonyl]amino]-  
.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



IT 194603-94-6

RL: RCT (Reactant)

(enzymic synthesis of sialyl-Lewis **libraries** with two non-natural monosaccharide units)

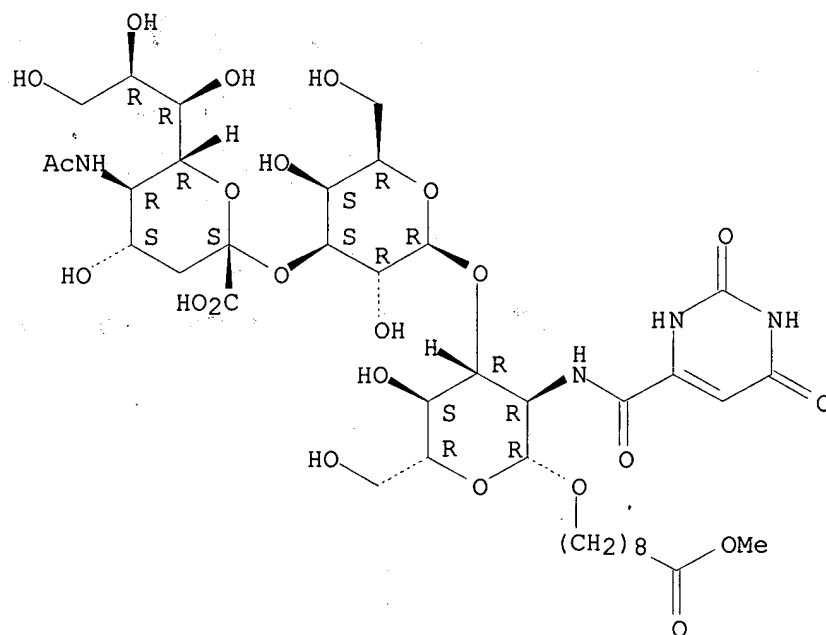
RN 194603-94-6 HCAPLUS

CN Nonanoic acid,

9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-

D-galactopyranosyl-(1.fwdarw.3)-2-deoxy-2-[[ (1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinyl)carbonyl]amino]-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.





=> d bib abs hitstr 144 15

L44 ANSWER 15 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1998:151233 HCAPLUS  
DN 128:214204  
TI Artificial promoter libraries for selected organisms containing promoters  
with a broad range of strengths and their use in metabolic engineering  
IN Jensen, Peter Ruhdal; Hammer, Karin  
PA Jensen, Peter Ruhdal, Den.; Hammer, Karin  
SO PCT Int. Appl., 90 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9807846	A1	19980226	WO 1997-DK342	<del>19970825</del>
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9739383	A1	19980306	AU 1997-39383	19970825
EP 934406	A2	19990811	EP 1997-936613	19970825
R:	BE, CH, DE, DK, FR, GB, LI, NL, SE, FI			
PRAI DK 1996-886		19960823		
WO 1997-DK342		19970825		

AB Artificial promoter libraries from which promoters of a desired strength can be derived for uses such as metabolic engineering are described. A library contains DNA fragments based around the consensus sequences for the host promoter, e.g. the -35 and -10 sequences of a prokaryotic promoter, optionally with up to half of the conserved bases substituted. The spacers between these elements are varied in length and sequence, contg. at least seven bases selected at random. Further, they may have a sequence comprising one or more recognition sites for restriction endonucleases added to one of or both their ends. A library may also contain a specific regulatory or response element. Such artificial promoter libraries contain promoters that differ in strengths by comparatively small degrees and can be used inter alia for optimizing the expression of specific genes in various selected organisms. Promoters of *Lactococcus lactis* were surveyed to generate a consensus sequence of 53 bases with 34 conserved, 2 semi-conserved and the remainder varying randomly, for a *Lactococcus* promoter and a library built around this sequence. The library was cloned immediately upstream of a promoterless lacLM reporter gene and the bank transformed into *Escherichia coli*. Forty-six clones showing promoter activity were analyzed further in *L. lactis lactis*. The .beta.-galactosidase levels arising from these promoters covered the range 0.3- >2,000 units but with comparatively small differences between promoters when they were ranked by yield of enzyme activity.

IT 4251-20-1 78424-15-4 87733-55-9

Searched by John Dantzman

308-4488

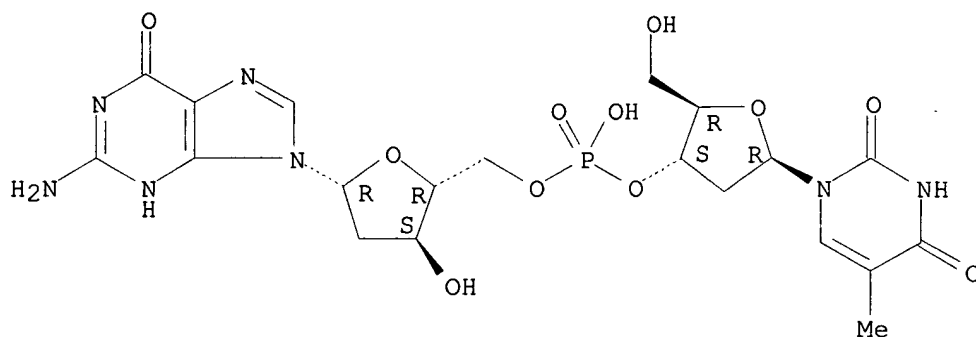
203864-68-0

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL  
(Biological  
study); USES (Uses)  
(artificial promoters contg.; artificial promoter **libraries**  
for selected organisms contg. promoters with broad range of strengths  
and their use in metabolic engineering)

RN 4251-20-1 HCAPLUS

CN Guanosine, thymidylyl-(3'.fwdarw.5')-2'-deoxy- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



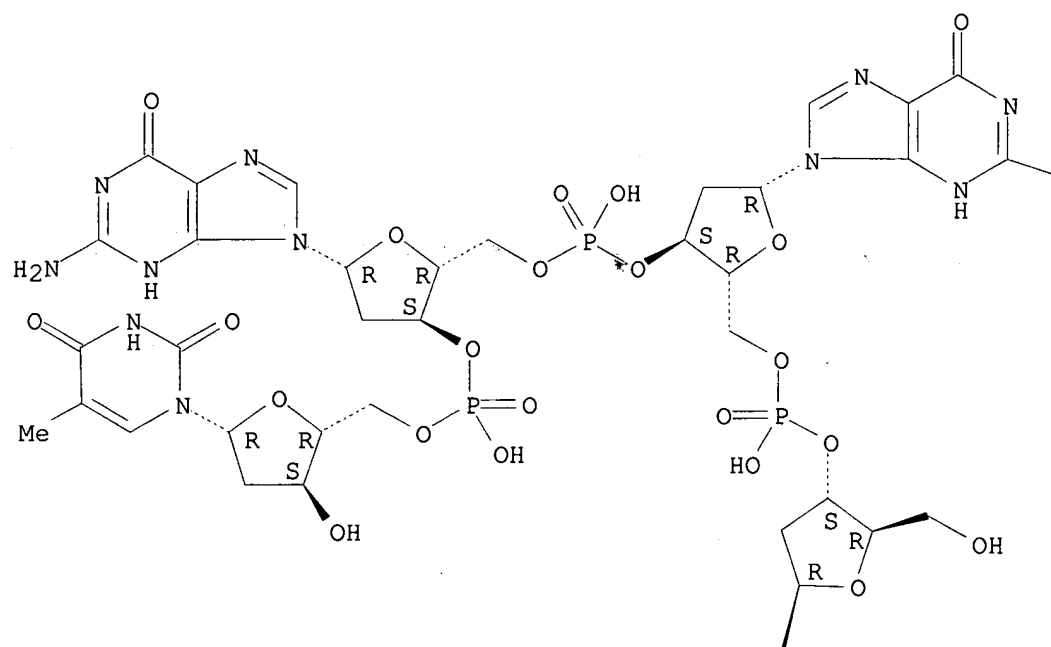
RN 78424-15-4 HCAPLUS

CN Thymidine,

2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-  
2'-deoxyguanylyl-(3'.fwdarw.5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

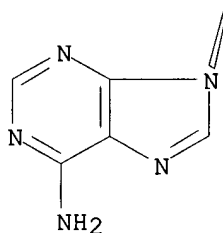
PAGE 1-A



PAGE 1-B

—NH<sub>2</sub>

PAGE 2-A

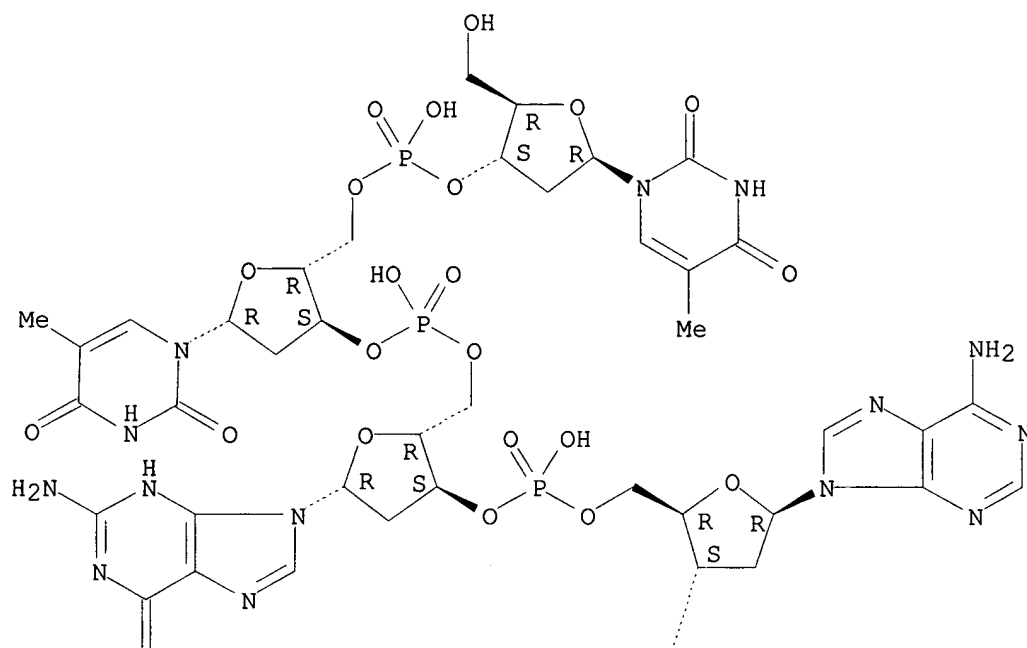


RN 87733-55-9 HCAPLUS  
 CN Adenosine, thymidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-  
 deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-  
 Searched by John Dantzman 308-4488

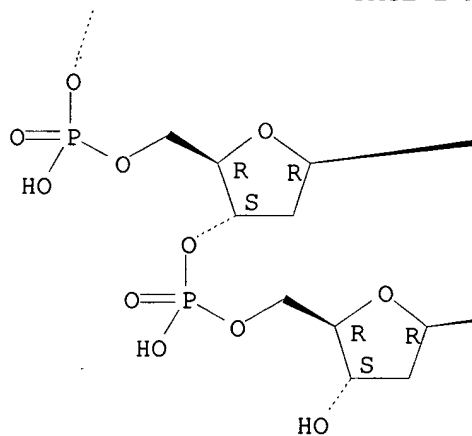
deoxycytidyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

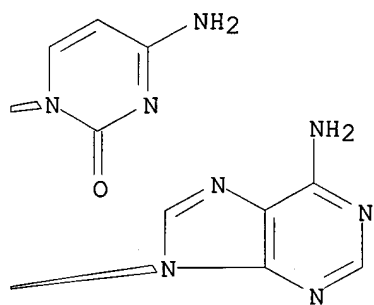
PAGE 1-A



PAGE 2-A



PAGE 2-B

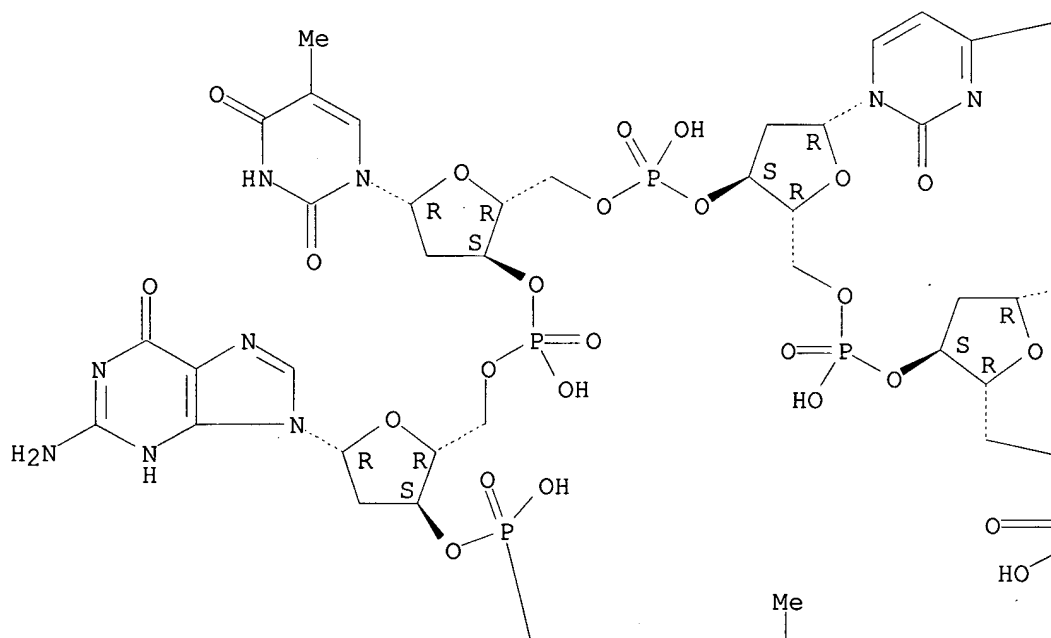


RN 203864-68-0 HCAPLUS

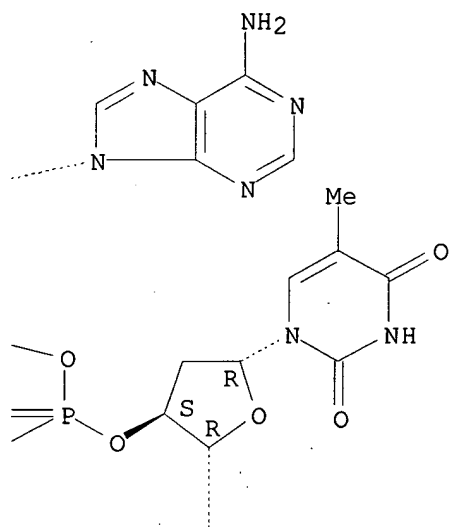
CN Thymidine, 2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

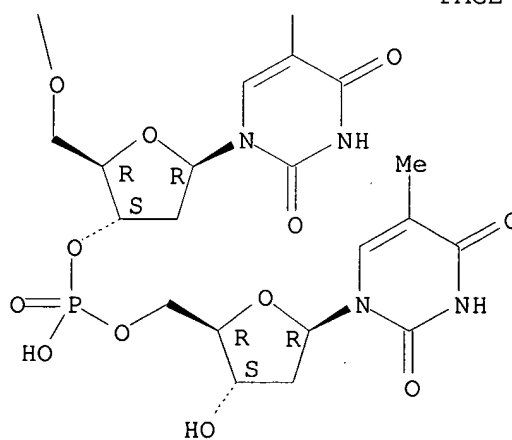
PAGE 1-A



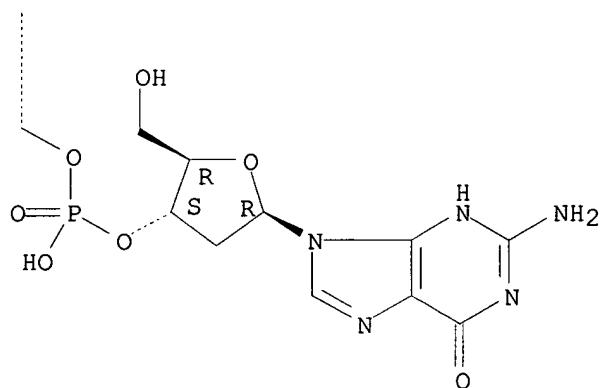
PAGE 1-B

—NH<sub>2</sub>

PAGE 2-A



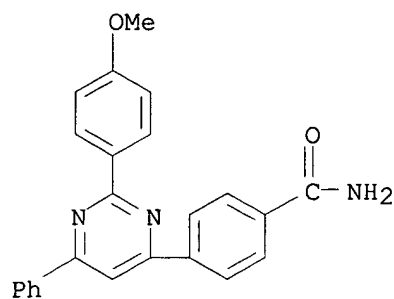
PAGE 2-B



=> d bib abs hitstr 144 16

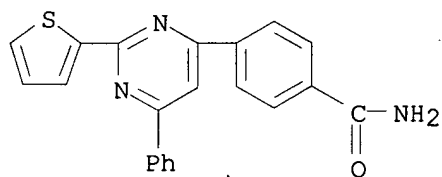
L44 ANSWER 16 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1998:48185 HCAPLUS  
DN 128:102053  
TI Key Intermediates in Combinatorial Chemistry: Access to Various  
Heterocycles from .alpha.,.beta.-Unsaturated Ketones on Solid Phase  
AU Marzinzik, Andreas L.; Felder, Eduard R.  
CS Novartis Pharma AG, Core Technology Area, Basel, CH-4002, Switz.  
SO J. Org. Chem. (1998), 63(3), 723-727  
CODEN: JOCEAH; ISSN: 0022-3263  
PB American Chemical Society  
DT Journal  
LA English  
AB The value of .alpha.,.beta.-unsatd. ketones as key intermediates for the  
combinatorial assembly of four different templates on the solid phase,  
namely pyrimidines, dihydropyrimidinones, pyridines, and pyrazoles, was  
explored with individual syntheses of variably substituted model compds.  
Starting from aldehydes grafted on polystyrene support, the Wittig and  
the Claisen-Schmidt reaction conditions were adapted to efficiently prep.  
.alpha.,.beta.-unsatd. ketones on the solid phase. Further  
derivatization of the .alpha.,.beta.-unsatd. ketones to form pyrimidines succeeded with  
a no. of amidines. In a feasibility study, the potential to obtain, in a  
modular fashion, other small heterocycles from the same intermediates was  
assessed. In this solid-phase approach, .alpha.,.beta.-unsatd. carbonyl  
intermediates can act as a three-carbon component and a primary enamine  
is utilized to complement the system for pyridine ring formation. Instead,  
with N-methylurea a dihydropyrimidinone is obtained. As an alternative,  
substituted hydrazines are incorporated in one orientation, providing  
pyrazoles with defined regioisomerism. The study indicates that  
.alpha.,.beta.-unsatd. ketones grafted on the solid phase can take a  
pivotal role as branching points in a no. of synthetic diversity schemes  
and, therefore, represent versatile intermediates for the efficient  
prepn. of combinatorial small mol. libraries.  
IT 201222-90-4P 201222-91-5P 201222-93-7P  
201222-96-0P 201222-97-1P 201222-98-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of **combinatorial libraries** of heterocycles  
using .alpha.,.beta.-unsatd. ketones as key intermediates on solid  
phase)  
RN 201222-90-4 HCAPLUS  
CN Benzamide, 4-[2-(4-methoxyphenyl)-6-phenyl-4-pyrimidinyl]- (9CI) (CA  
INDEX NAME)





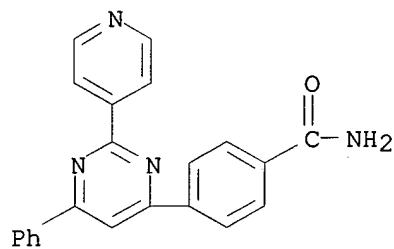
RN 201222-91-5 HCAPLUS

CN Benzamide, 4-[6-phenyl-2-(2-thienyl)-4-pyrimidinyl]- (9CI) (CA INDEX NAME)



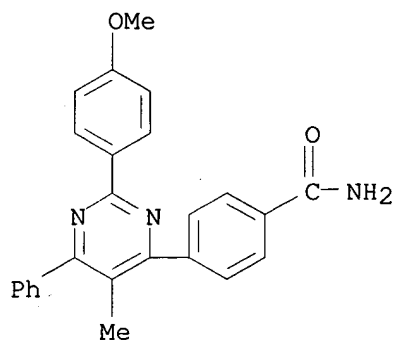
RN 201222-93-7 HCAPLUS

CN Benzamide, 4-[6-phenyl-2-(4-pyridinyl)-4-pyrimidinyl]- (9CI) (CA INDEX NAME)



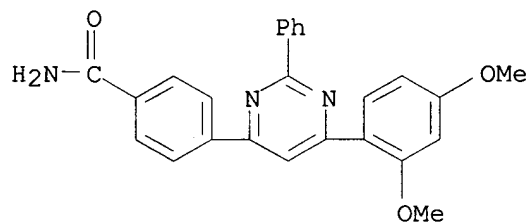
RN 201222-96-0 HCAPLUS

CN Benzamide, 4-[2-(4-methoxyphenyl)-5-methyl-6-phenyl-4-pyrimidinyl]- (9CI) (CA INDEX NAME)



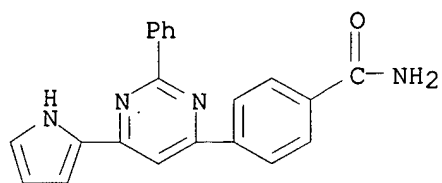
RN 201222-97-1 HCAPLUS

CN Benzamide, 4-[6-(2,4-dimethoxyphenyl)-2-phenyl-4-pyrimidinyl]- (9CI) (CA INDEX NAME)



RN 201222-98-2 HCAPLUS

CN Benzamide, 4-[2-phenyl-6-(1H-pyrrol-2-yl)-4-pyrimidinyl]- (9CI) (CA INDEX NAME)



=> d bib abs hitstr 144 18

L44 ANSWER 18 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1997:740244 HCAPLUS  
DN 127:331700  
TI A combinatorial protecting group strategy for the solid phase preparation  
of oligodeoxyribonucleotides  
IN Koster, Hubert; Leikauf, Eckart  
PA Koster, Hubert, USA; Leikauf, Eckart  
SO PCT Int. Appl., 59 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9741139	A2	19971106	WO 1997-US6509	19970417
	WO 9741139	A3	19971204		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9724624	A1	19971119	AU 1997-24624	19970417
	EP 898575	A2	19990303	EP 1997-920432	19970417
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRAI US 1996-15699 19960417  
WO 1997-US6509 19970417

AB In general, the invention features the use of novel protection schemes and solid phase prepn. reactions to generate mols. of core structure M (M is a multifunctional low mol. wt. compd., such as a saccharide, amino sugar, deoxy sugar, nucleoside, nucleotide, coenzyme, amino acid, lipid, steroid, vitamin, hormone, alkaloid, or small mol. drug), which have a plurality of functionalities, each of which can be individually protected or functionalized. Thus, d(TTTT) and d(TAGCT) were prepd. using an app. for manual prepn. consisted of column type reactor fitted with a sintered glass frit, a stopcock, and a connection to a vacuum pump to remove solvents by suction or to dry the support just before the condensation step.

IT 178313-78-5P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(combinatorial protecting group strategy for the solid phase prepn. of oligodeoxyribonucleotides)

RN 178313-78-5 HCAPLUS

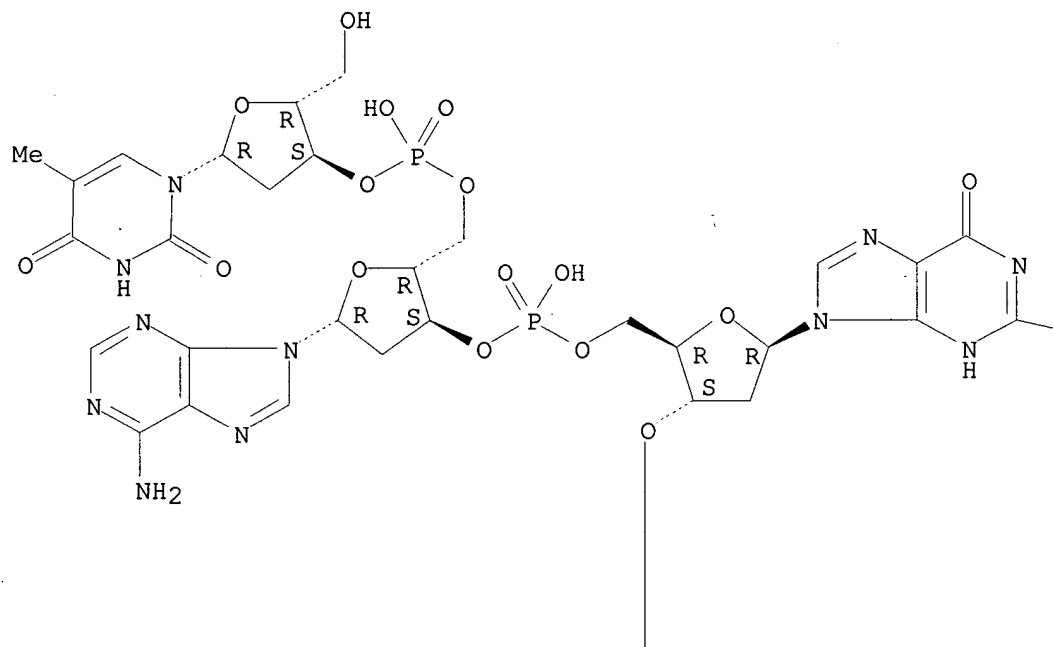
CN Thymidine, thymidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')- (9CI) (CA

Searched by John Dantzman 308-4488

INDEX NAME)

Absolute stereochemistry.

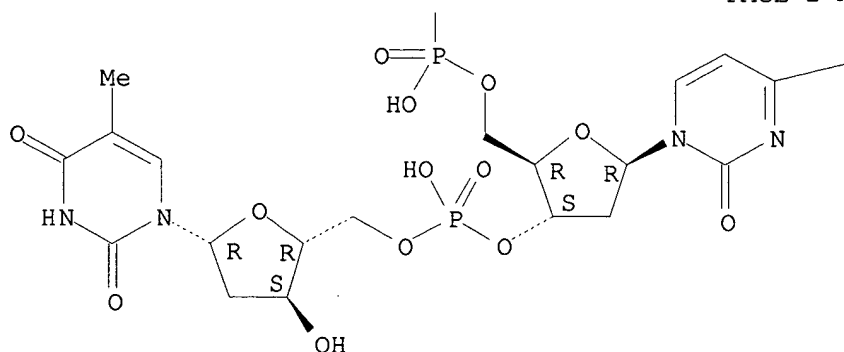
PAGE 1-A



PAGE 1-B

—NH<sub>2</sub>

PAGE 2-A



PAGE 2-B

—NH<sub>2</sub>

IT 178313-82-1P 197963-39-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (combinatorial protecting group strategy for the solid phase  
 prepn. of oligodeoxyribonucleotides)

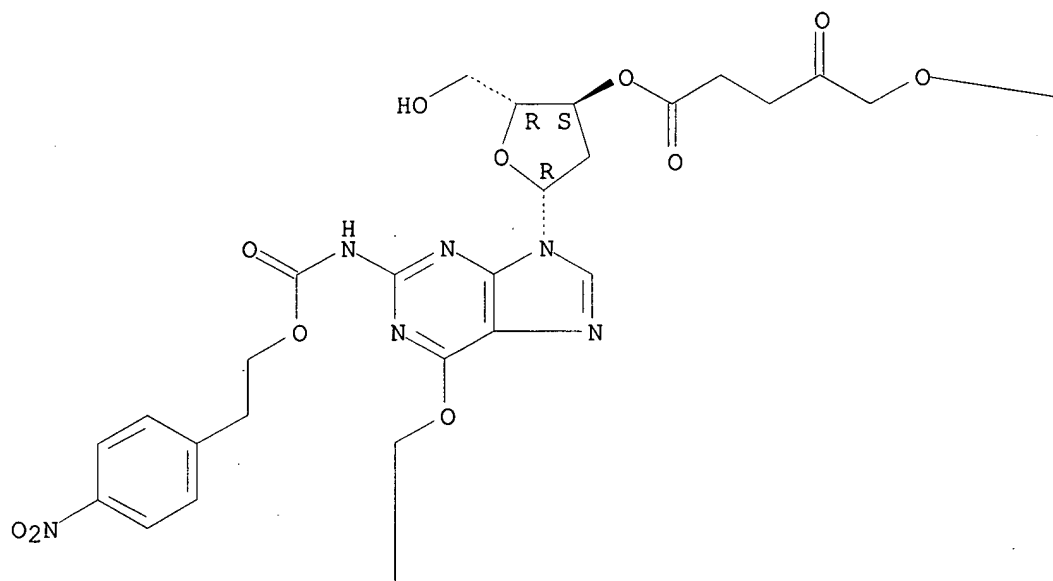
RN 178313-82-1 HCAPLUS

CN: Guanosine, 2'-deoxy-N-[[2-(4-nitrophenyl)ethoxy]carbonyl]-6-O-[2-(4-  
 nitrophenyl)ethyl]-,

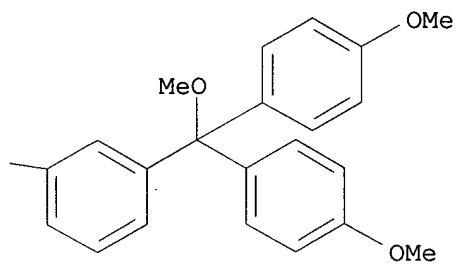
3'-[5-[3-[methoxybis(4-methoxyphenyl)methyl]phenoxy]-  
 4-oxopentanoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

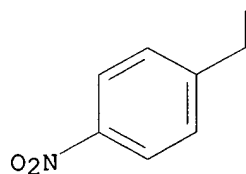
PAGE 1-A



PAGE 1-B



PAGE 2-A

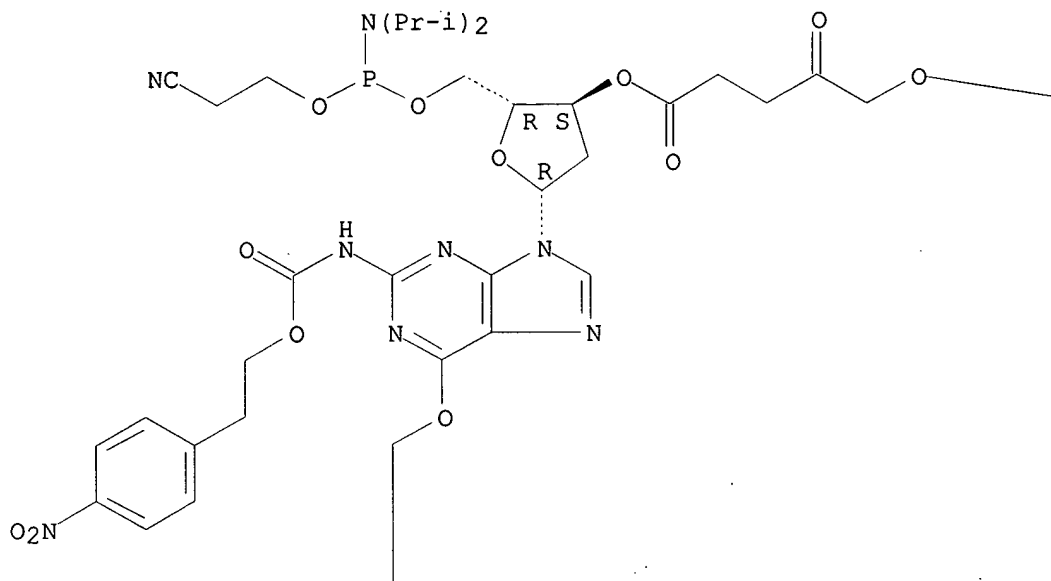


RN 197963-39-6 HCAPLUS  
 CN Guanosine, 2'-deoxy-N-[[2-(4-nitrophenyl)ethoxy]carbonyl]-,  
 5'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite]  
 3'-[5-[3-[methoxybis(1-methylethyl)phosphoryl]ethoxy]ethyl]phosphoryl  
 Searched by John Dantzman 308-4488

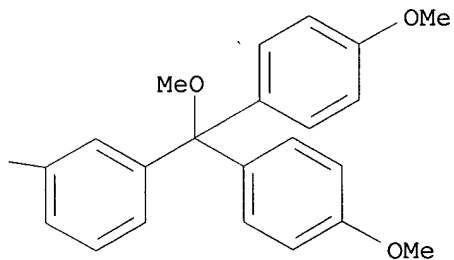
methoxyphenyl)methyl]phenoxy]-4-oxopentanoate] 6-[2-(4-nitrophenyl)ethyl  
carbonate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

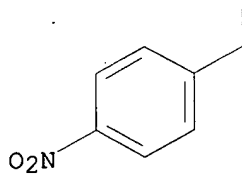
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PAGE 2-A



RICIGLINO

08/884873

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Searched by John Dantzman

308-4488



=> d bib abs hitstr 144 19

L44 ANSWER 19 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1997:686949 HCAPLUS

DN 127:319211

TI Combinatorial strategies for DNA and peptides preparation

IN Winkler, James L.; Fodor, Stephen P. A.; Buchko, Christopher J.; Ross, Debra A.; Aldwin, Lois; Modlin, Douglas N.

PA Affymax Technologies N.V., Neth.

SO U.S., 41 pp. Cont.-in-part of U.S. 5,384,261.

CODEN: USXXAM

DT Patent

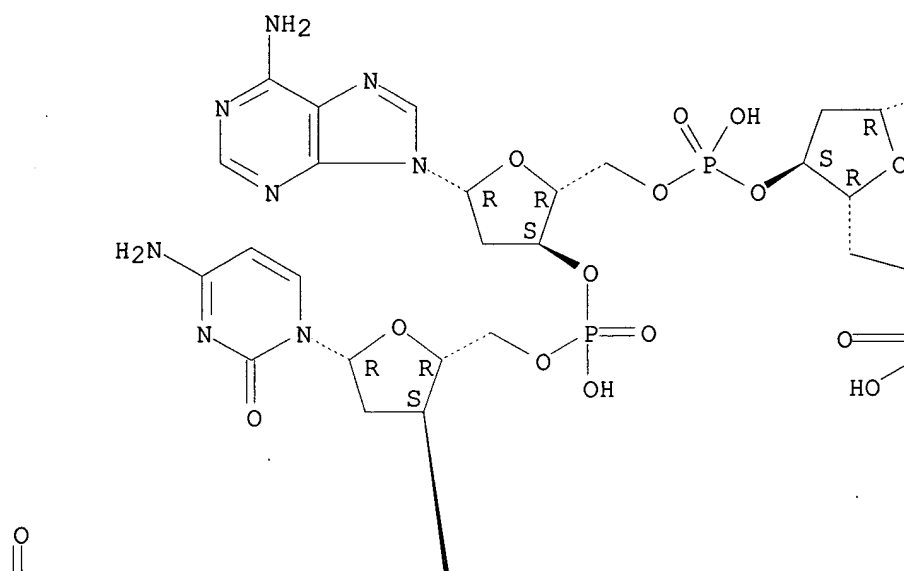
LA English

FAN.CNT 2

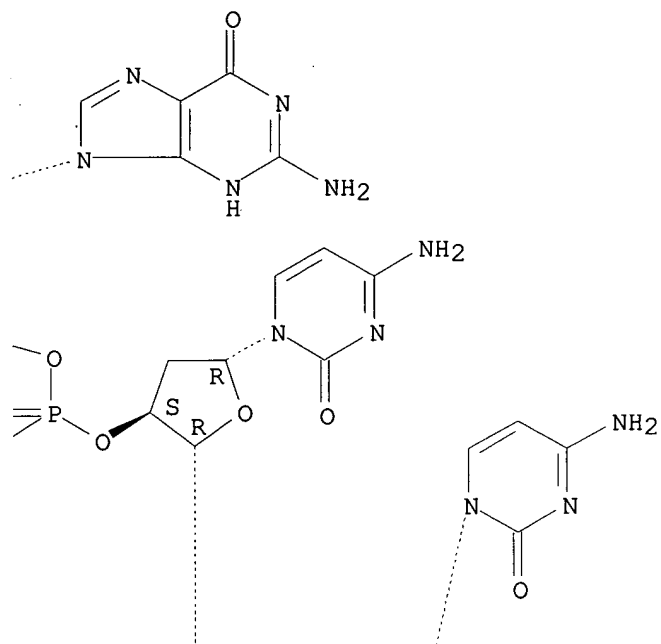
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5677195	A	19971014	US 1992-980523	19921120
	US 5384261	A	19950124	US 1991-796243	19911122
	US 5412087	A	19950502	US 1992-874849	19920424
	EP 916396	A2	19990519	EP 1998-118908	19921120
	EP 916396	A3	20000119		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, IE				
	EP 972564	A2	20000119	EP 1999-202441	19921120
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE	WO 9322680	A1	19931111	WO 1993-US3767	19930421
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9341107	A1	19931129	AU 1993-41107	19930421
	US 5885837	A	19990323	US 1996-740170	19961023
PRAI	US 1991-796243		19911122		
	US 1992-874849		19920424		
	EP 1992-925414		19921120		
	WO 1993-US3767		19930421		
	US 1994-246590		19940520		
AB	A method and device for forming large arrays of DNA and peptides on a substrate is reported. The method may be combined with light-directed methodologies.				
IT	<b>151782-41-1P 197719-81-6DP</b> , 3'-fluorescein-labeled				
	RL: SPN (Synthetic preparation); PREP (Preparation)				
	(combinatorial strategies for DNA and peptides prepn.)				
RN	151782-41-1 HCAPLUS				
CN	Cytidine,				
	2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-				
	2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-				
	deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-				
	deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.

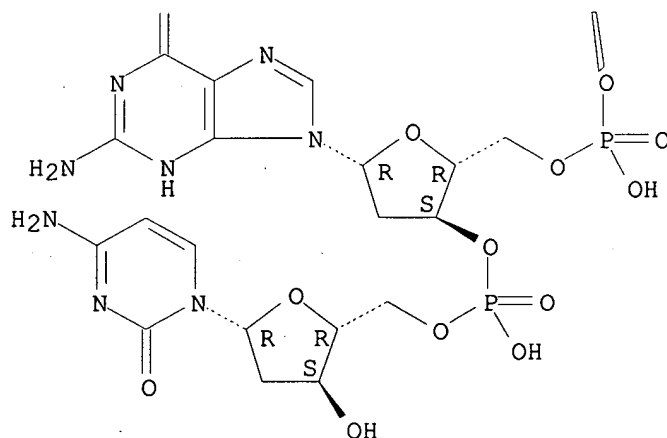
PAGE 1-A



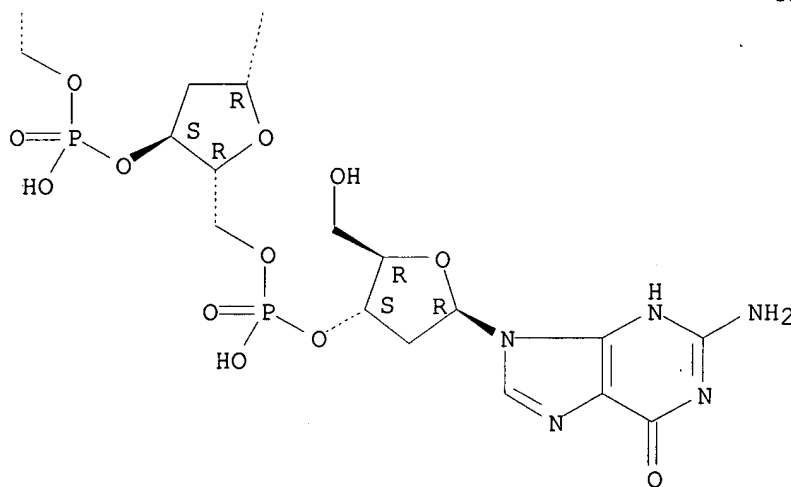
PAGE 1-B



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PAGE 2-B



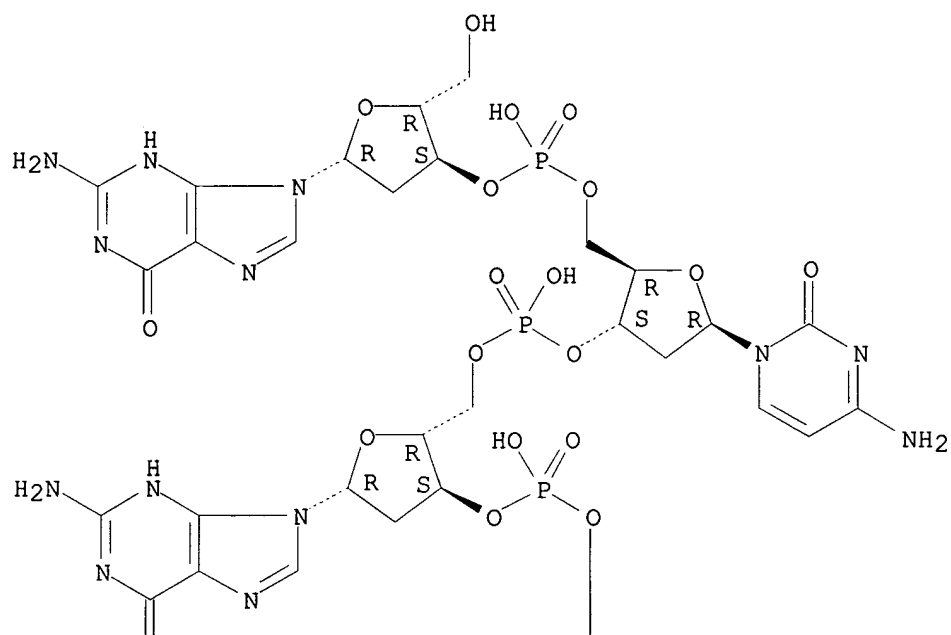
RN 197719-81-6 HCAPLUS

CN Cytidine,

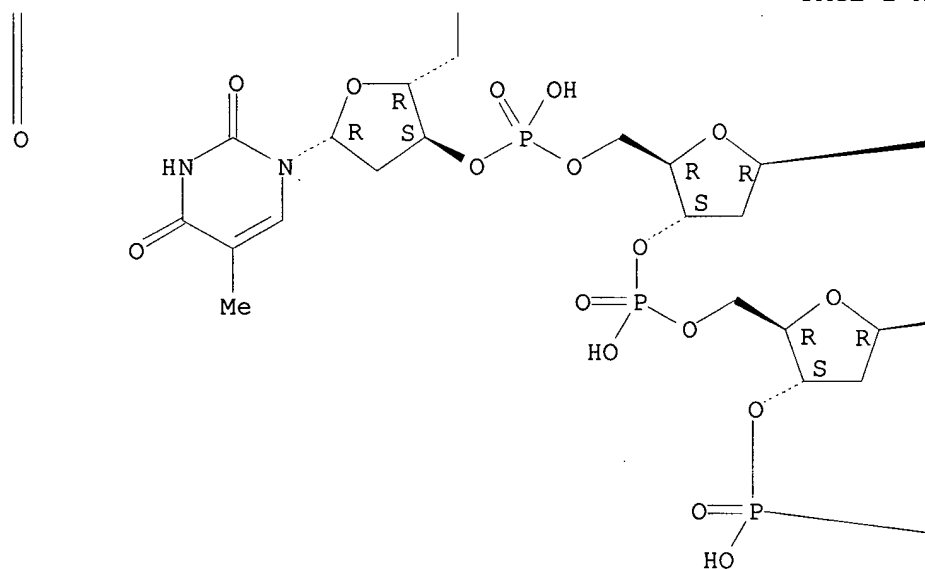
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-  
 2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-  
 deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
 deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

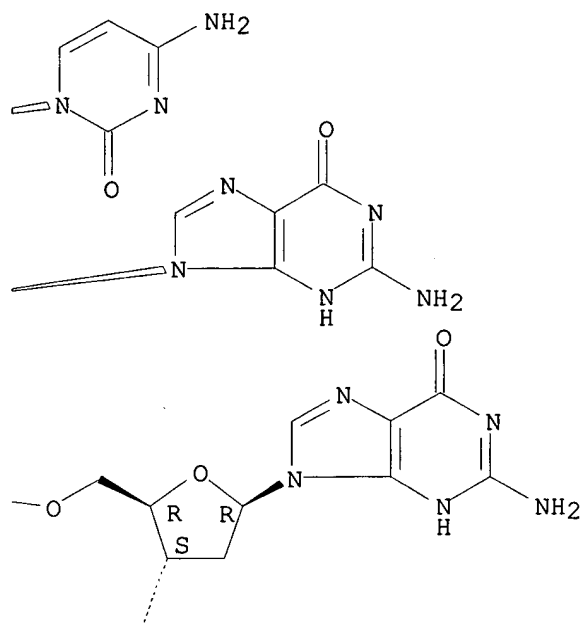
PAGE 1-A



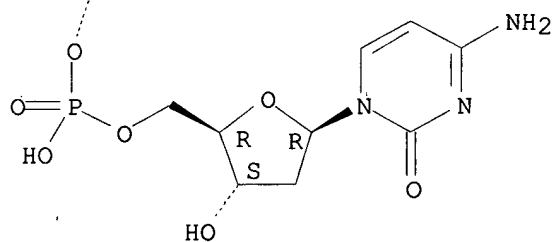
PAGE 2-A



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PAGE 3-B

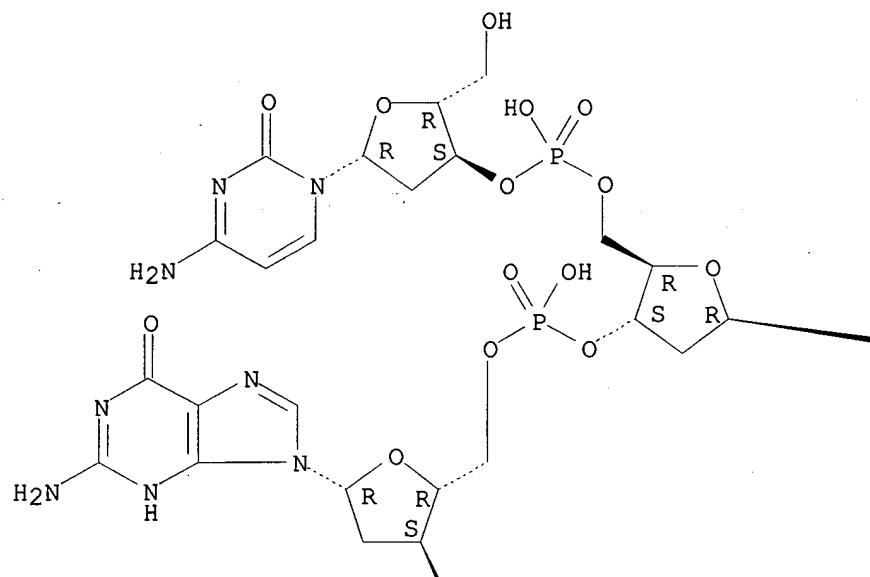


=> d bib abs hitstr 144 20

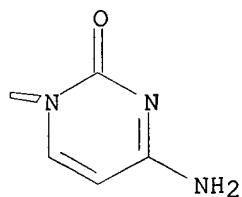
L44 ANSWER 20 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1997:454756 HCAPLUS  
DN 127:202056  
TI Cofactor-assisted self-cleavage in DNA libraries with a  
3'-5'-phosphoramidate bond  
AU Burmeister, Jens; von Kiedrowski, Gunter; Ellington, Andrew D.  
CS Lehrstuhl Organische Chemie I Universitat, Bochum, D-44801, Germany  
SO Angew. Chem., Int. Ed. Engl. (1997), 36(12), 1321-1324  
CODEN: ACIEAY; ISSN: 0570-0833  
PB Wiley-VCH  
DT Journal  
LA English  
AB 3'-5'-Phosphoramidate bond-contg. DNA sequences capable of catalyzing  
cofactor-assisted self-cleavage were obtained by in vitro selection from  
an oligonucleotide library contg. a randomized 72-mer sequence. The  
method involved prepn. of immobilized phosphoramidate-contg. randomized  
72-mer. The 72-mer was then allowed to react in presence of dansylated  
trimer, hexameric template, and magnesium. Reaction produced a pool of  
catalytic 72-mers which was amplified for the next round of selection.  
Neg. selection (removal of those DNA sequences that were released via  
uncatalyzed hydrolysis) was also utilized. Cloning and sequencing of PCR  
products from the last rounds revealed a single dominating clone. The  
secondary structure was predicted and showed tight folding around the  
const. primer regions. Closer examn. of the cloned sequence showed that  
it catalyzes the hydrolysis (not transphosphorylation) of an internal  
3'-5'-phosphoramidate bond in the presence of a specific trimeric  
cofactor.  
IT **94854-99-6**  
RL: NUU (Nonbiological use, unclassified); USES (Uses)  
(hexameric template; in vitro selection and characterization of  
cofactor-assisted self-cleaving phosphoramidate-contg. deoxyribozymes  
from DNA **libraries**)  
RN 94854-99-6 HCAPLUS  
CN Guanosine, 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-  
(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-  
(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.

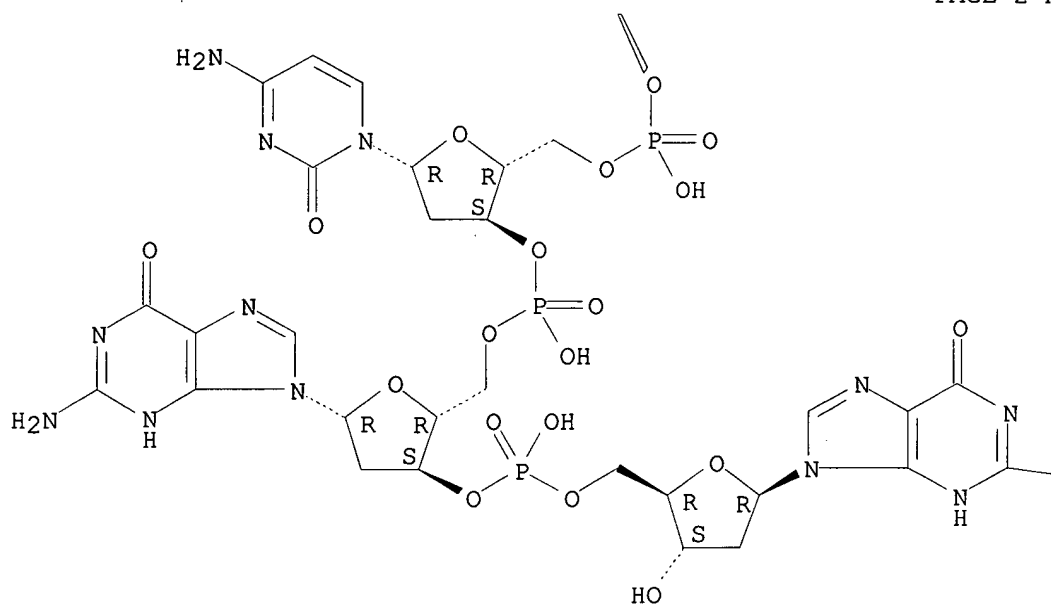
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NH<sub>2</sub>

IT 194602-90-9

RL: NUU (Nonbiological use, unclassified); RCT (Reactant); USES (Uses)  
 (trimeric cofactor; in vitro selection and characterization of  
 cofactor-assisted self-cleaving phosphoramidate-contg. deoxyribozymes  
 from DNA **libraries**)

RN 194602-90-9 HCAPLUS

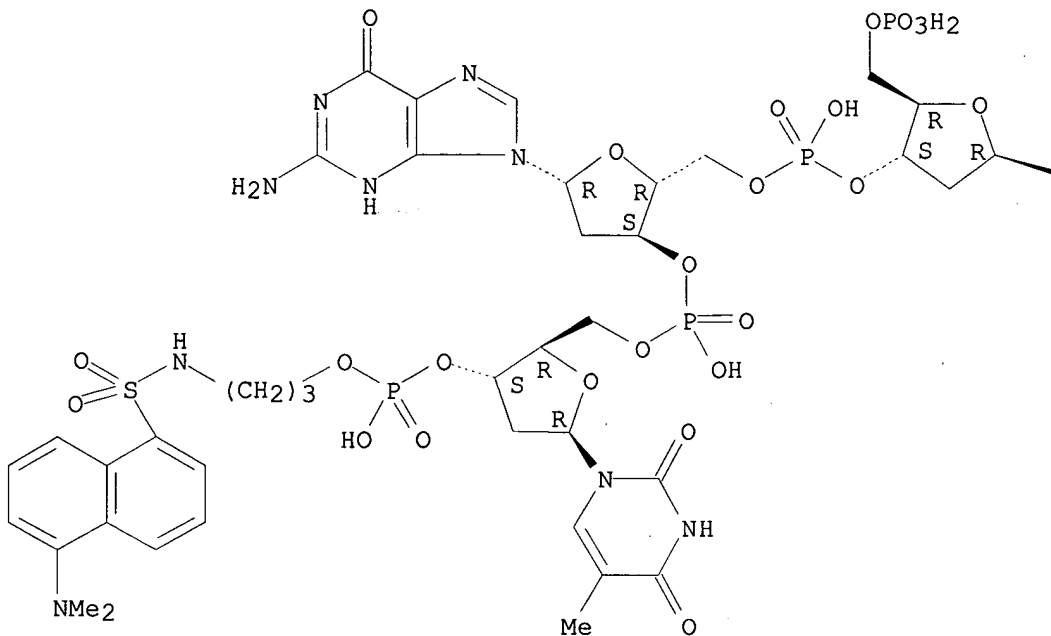
CN 3'-Thymidylic acid, 2'-deoxy-5'-O-phosphonocytidylyl-(3'.fwdarw.5')-2'-  
 deoxyguanylyl-(3'.fwdarw.5')-, 3'-[3-[[[5-(dimethylamino)-1-  
 naphthalenyl]sulfonyl]amino]propyl] ester (9CI) (CA INDEX NAME)

Searched by John Dantzman 308-4488

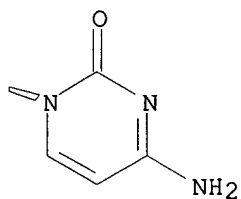


Absolute stereochemistry.

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=> d bib abs hitstr 144 21

L44 ANSWER 21 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1997:381053 HCAPLUS

DN 127:107704

TI Sequence and structure specific antibodies from phage display libraries

AU Tanha, Jamshid; Forsyth, Gavin; Schorr, Peter; Crosby, William; Lee, Jeremy S.

CS Dep. Biochemistry, Univ. Saskatchewan, Saskatoon, S7N 5E5, Can.

SO Mol. Immunol. (1997), 34(2), 109-113

CODEN: MOIMD5; ISSN: 0161-5890

PB Elsevier

DT Journal

LA English

AB A large combinatorial phage display library was panned against five nucleic acid antigens, calf thymus DNA, poly[d(GC)], poly[d(AT)], poly(dA).cntdot.poly(dT) and poly(dT). After the third and fourth rounds of panning, many pos. clones were selected against poly[d(GC)], poly(dA).cntdot.poly(dT) and poly(rA).cntdot.poly(dT). The specificity

of these antibodies was tested by both direct and competitive solid phase radioimmune assays. All the clones derived from panning with poly[d(GC)] were non-specific and bound to all nucleic acids. The poly(rA).cntdot.poly(dT) derived clones were specific for single-stranded nucleic acids, with some sequence preferences, and the poly(dA).cntdot.poly(dT) derived clones showed considerable specificity for this antigen. The sequences of these phage-derived antibodies showed no similarities with DNA-binding antibodies from other sources. Even after six rounds of panning no pos. clones were detected which bound to poly[d(AT)] and after seven rounds only two were derived from panning

with calf thymus DNA. Therefore, sequence and structure specific antibodies can be recovered from phage display libraries but not all sequences may

be

represented in the repertoire.

IT 36786-90-0

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(sequence and structure specific antibodies from phage display  
libraries)

RN 36786-90-0 HCAPLUS

CN Cytidine, 2'-deoxy-5'-O-phosphonoguanlyl-(3'.fwdarw.5')-2'-deoxy-,  
homopolymer (9CI) (CA INDEX NAME)

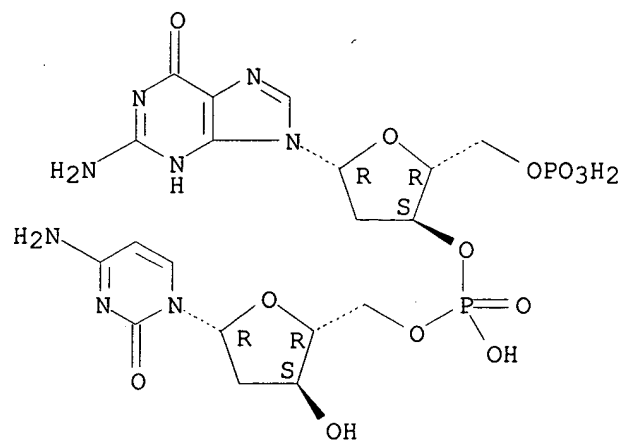
CM 1

CRN 2402-35-9

CMF C19 H26 N8 O13 P2

CDES 5:B-D-ERYTHRO,B-D-ERYTHRO

Absolute stereochemistry.

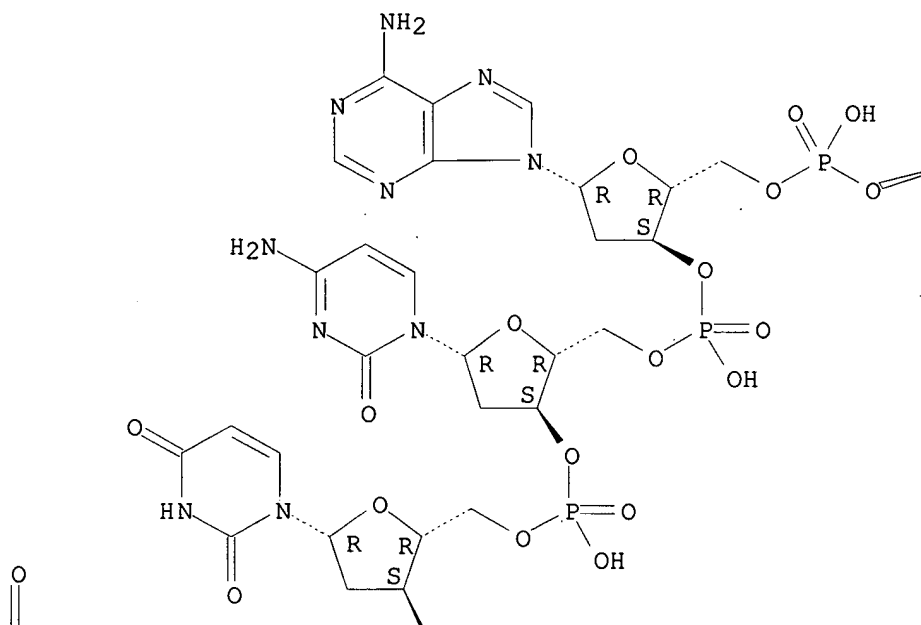


=> d bib abs hitstr 144 22

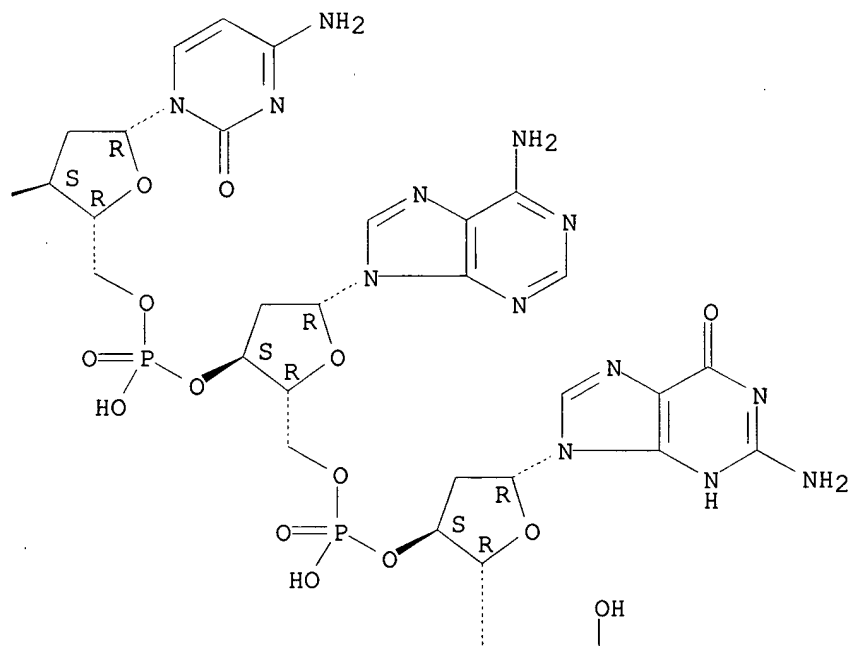
L44 ANSWER 22 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1997:247928 HCAPLUS  
DN 126:317558  
TI Deconvolution of Combinatorial Oligonucleotide Libraries by Electrospray Ionization Tandem Mass Spectrometry  
AU Pomerantz, Steven C.; McCloskey, James A.; Tarasow, Theodore M.; Eaton, Bruce E.  
CS Departments of Medicinal Chemistry and Biochemistry, University of Utah, Salt Lake City, UT, 84112, USA  
SO J. Am. Chem. Soc. (1997), 119(17), 3861-3867  
CODEN: JACSAT; ISSN: 0002-7863  
PB American Chemical Society  
DT Journal  
LA English  
AB Studies were undertaken to explore the application of tandem mass spectrometry for the structure anal. of unfractionated mixts. of oligonucleotides. Limited combinatorial libraries were constructed of mixts. of 8-mers (NGACACNG; nine compds.) and 12-mers (NGACTNAGACNG; 27 compds.), where N is any of the 2'-deoxyribonucleotides of uracil, thymine, or 5-[N-(aminoethyl)-3-acrylimido]uracil. Mol. mass measurements of the mixt. components (single mass analyzer) in the simplest cases or acquisition of collision-induced disson. mass spectra (tandem mass analyzers) for mixts. of sequence isomers of the same mol. mass were used to establish guidelines for structure assignments. Although the construction of mass sequencing ladders from gas phase backbone cleavage reactions is notably more complex in the case of isomeric mixts. than for the single isomer case, assignment ambiguities are reduced by the presence of nonrandomized sequence positions and by recognition of likely fragment ion relative abundances. The approaches described offer a significant advance toward solving problems common to the development of oligonucleotide therapeutics using combinatorial synthesis techniques.  
IT 189237-65-8P 189237-66-9P 189237-67-0P  
189237-68-1P 189237-69-2P 189237-70-5P  
189237-71-6P 189237-72-7P 189237-73-8P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(deconvolution of **combinatorial** oligodeoxyribonucleotide **libraries** by electrospray ionization tandem mass spectrometry)  
RN 189237-65-8 HCAPLUS  
CN Guanosine,  
2'-deoxyuridylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-  
2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
deoxyuridylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

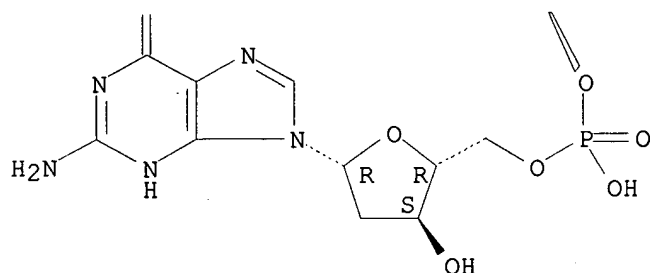
PAGE 1-A



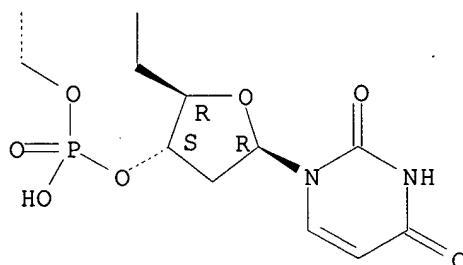
PAGE 1-B



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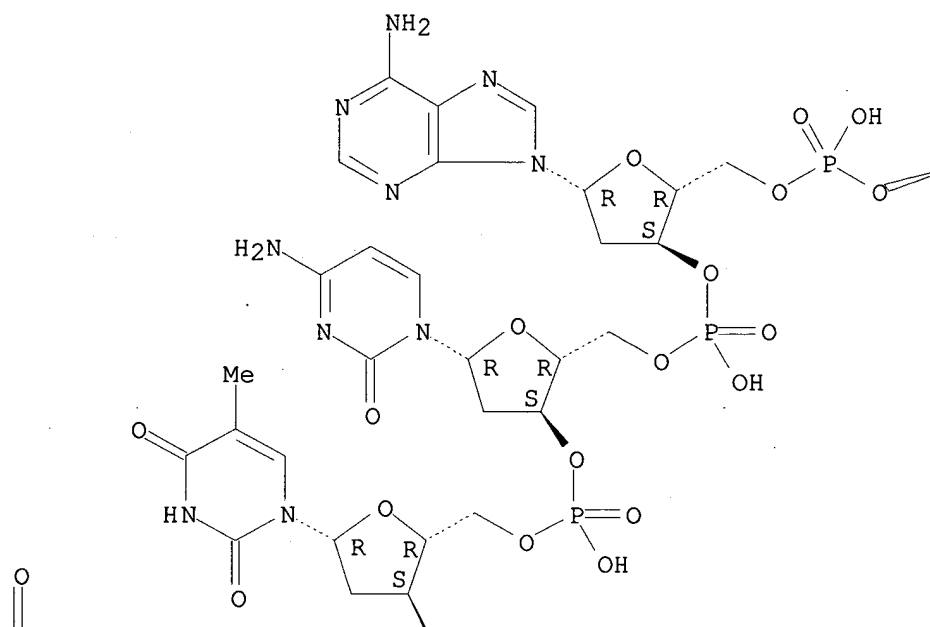
RN 189237-66-9 HCAPLUS

CN Guanosine,

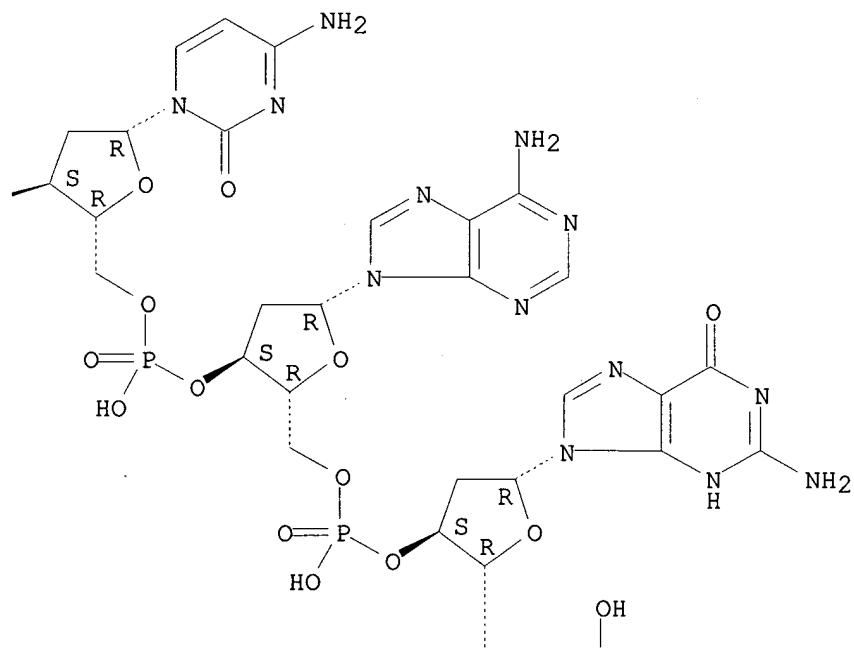
2'-deoxyuridylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-  
2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-thymidylyl-  
(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

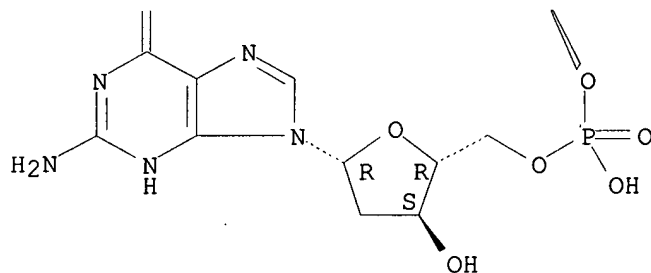
PAGE 1-A



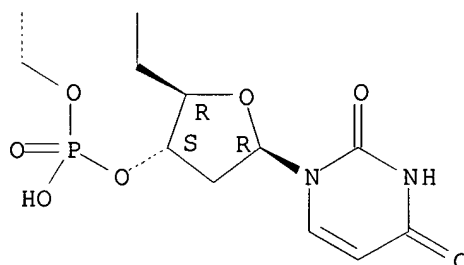
PAGE 1-B



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RN 189237-67-0 HCAPLUS

CN Guanosine,

2'-deoxyuridylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-  
 2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
 deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-5-[(1E)-3-

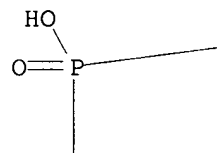
[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxyuridylyl-(3'.fwdarw.5')-2'-  
 deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

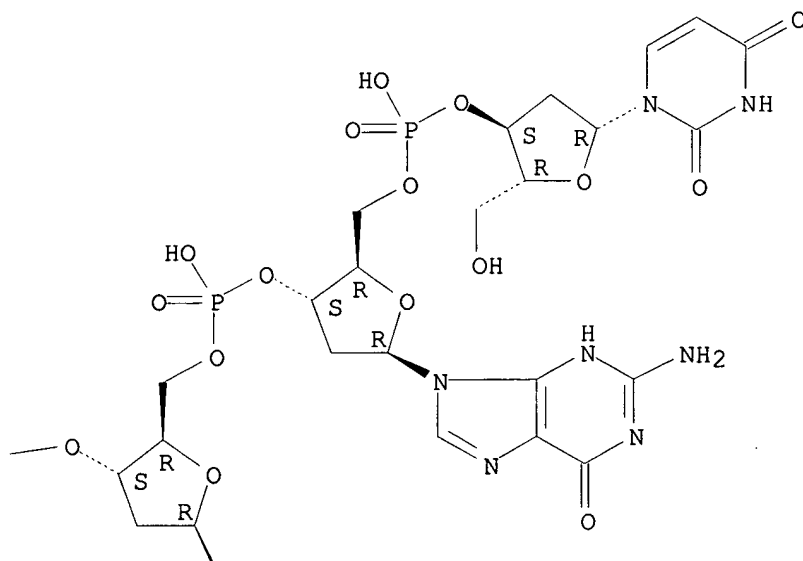
Double bond geometry as shown.



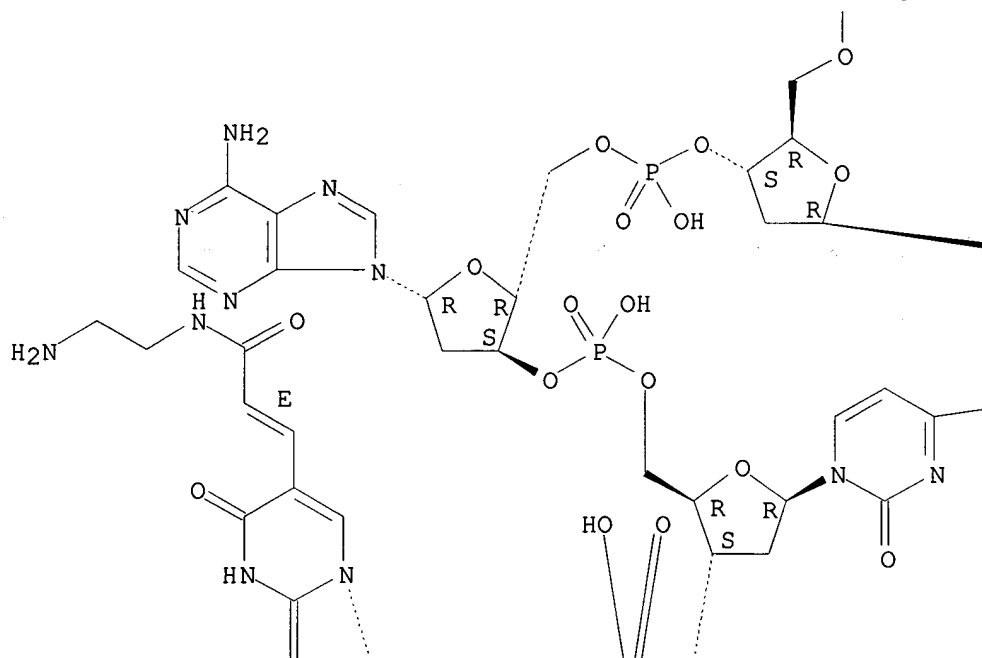
PAGE 1-A



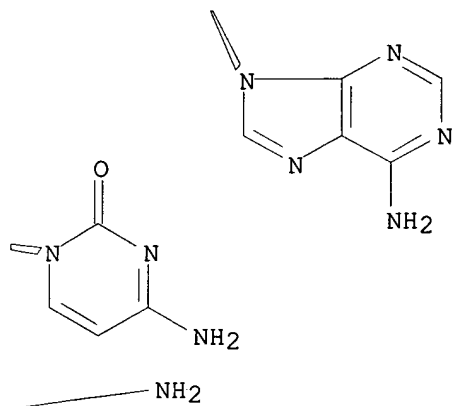
PAGE 1-B



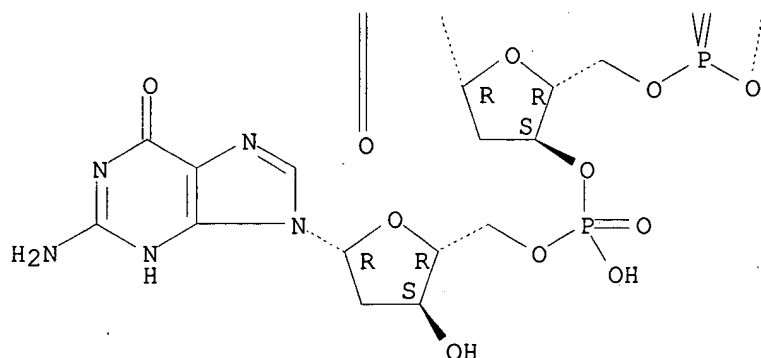
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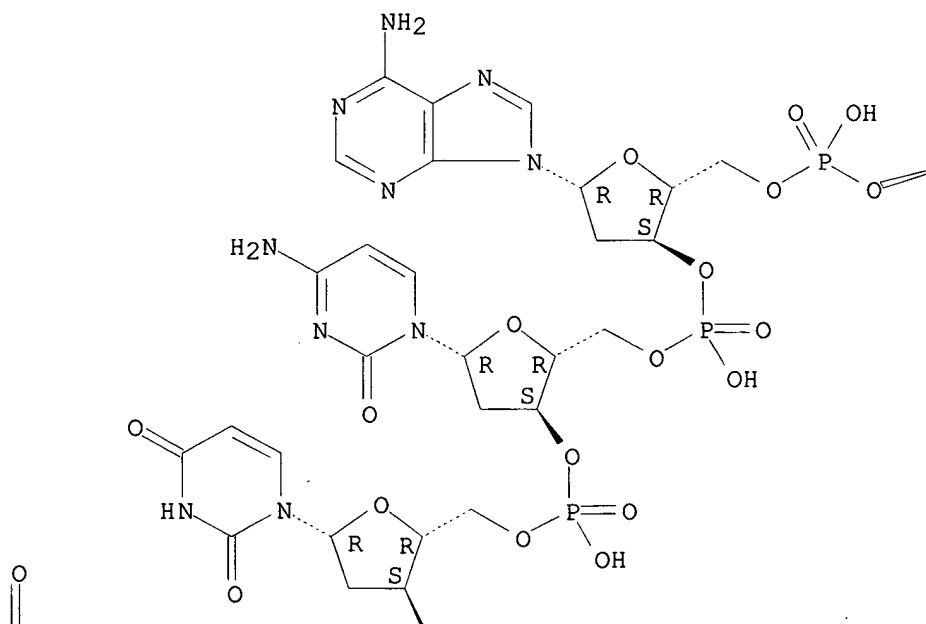


RN 189237-68-1 HCAPLUS

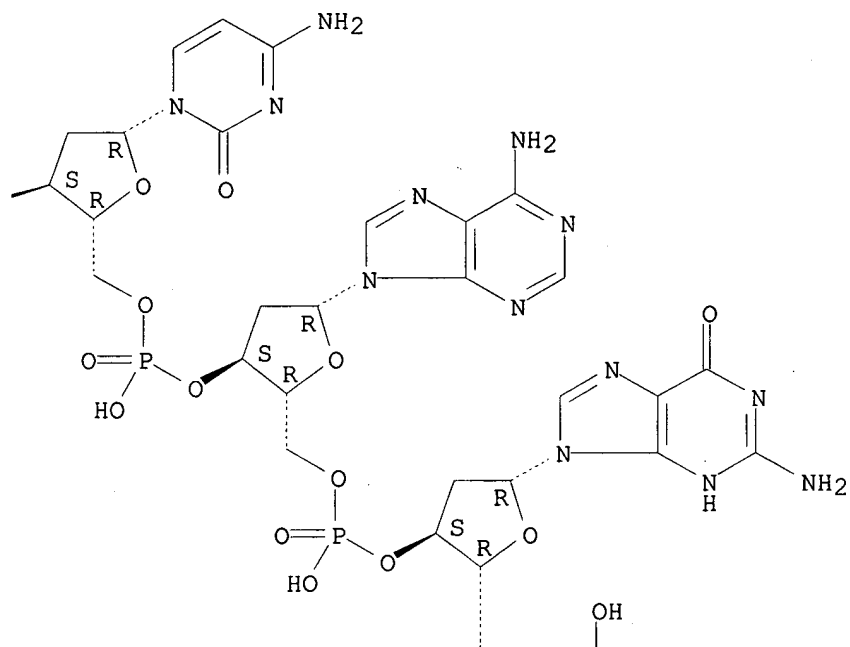
CN Guanosine, thymidyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
 deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidyl-(3'.fwdarw.5')-2'-  
 deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidyl-(3'.fwdarw.5')-2'-  
 deoxyuridylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

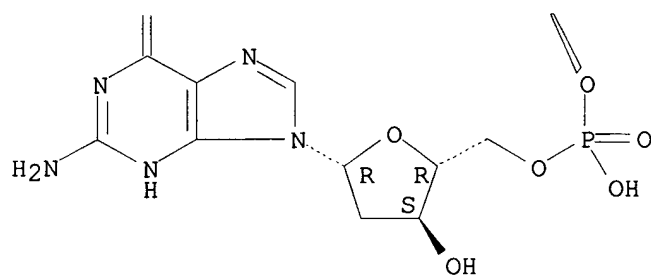
PAGE 1-A



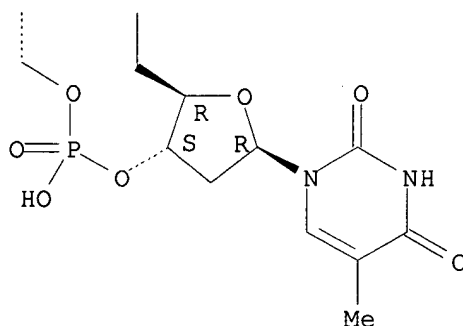
PAGE 1-B



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PAGE 2-B

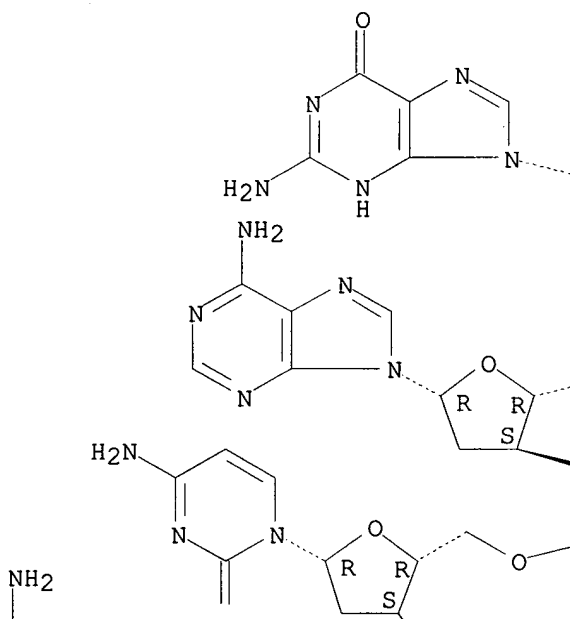


RN 189237-69-2 HCAPLUS

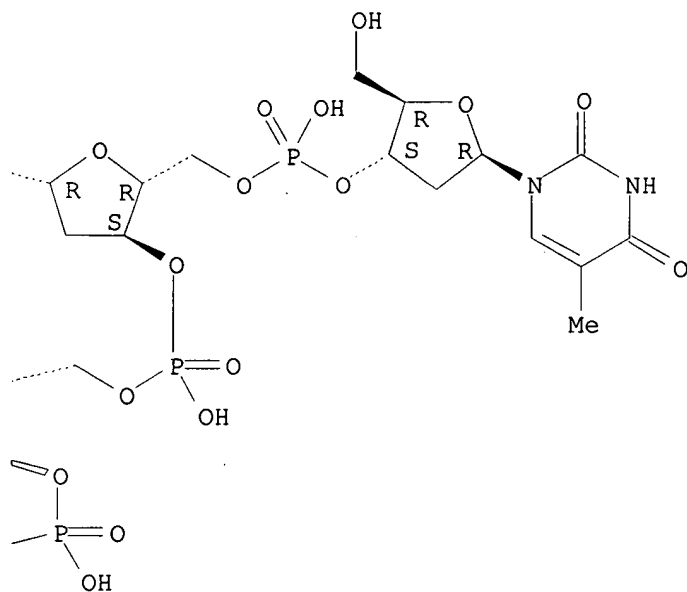
CN Guanosine, thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-thymidylyl-  
(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

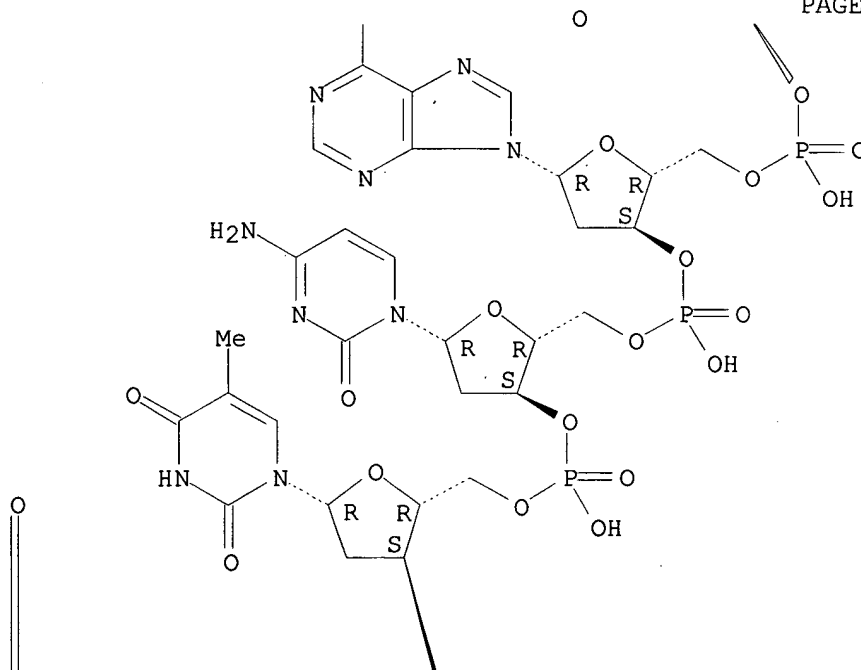
PAGE 1-A



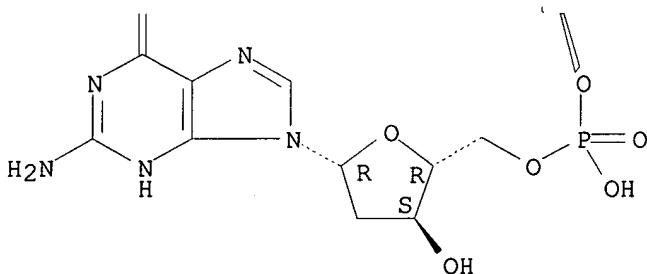
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RN 189237-70-5 HCAPLUS

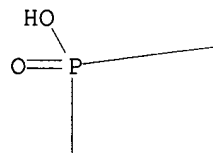
CN Guanosine, thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
 deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
 deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-5-[(1E)-3-

[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxyuridylyl-(3'.fwdarw.5')-2'-  
 deoxy- (9CI) (CA INDEX NAME)

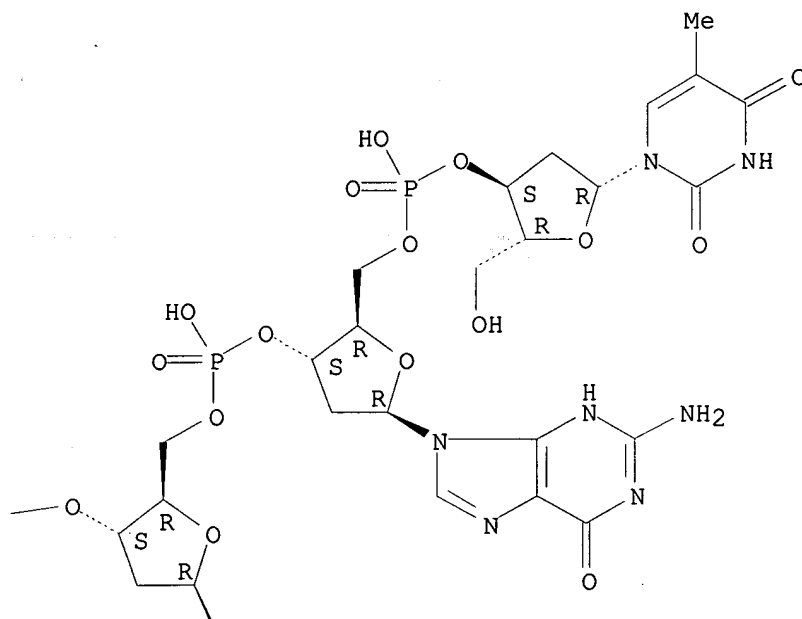
Absolute stereochemistry.

Double bond geometry as shown.

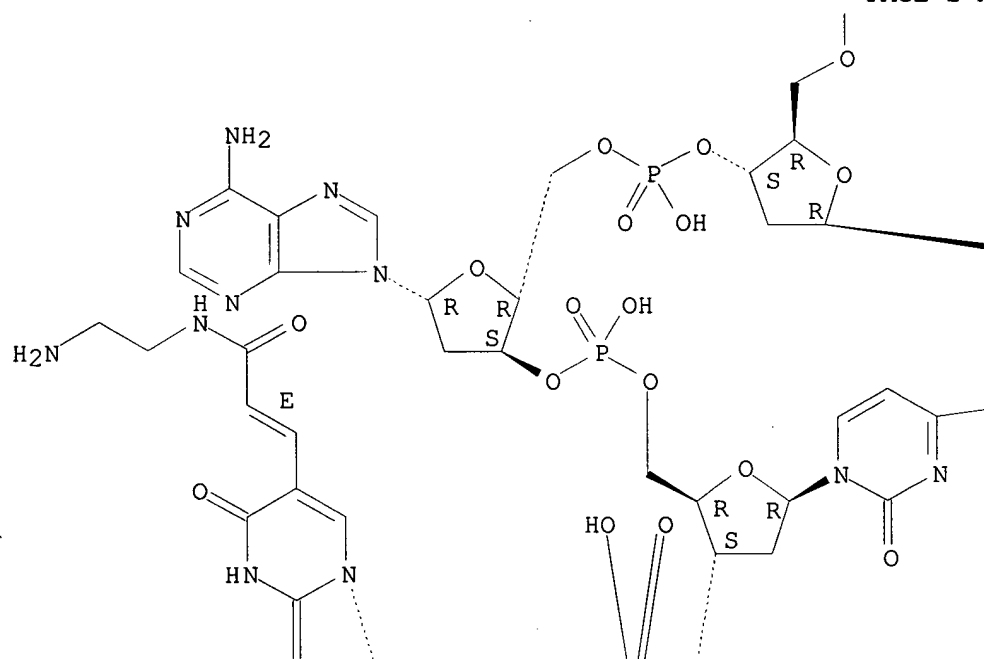
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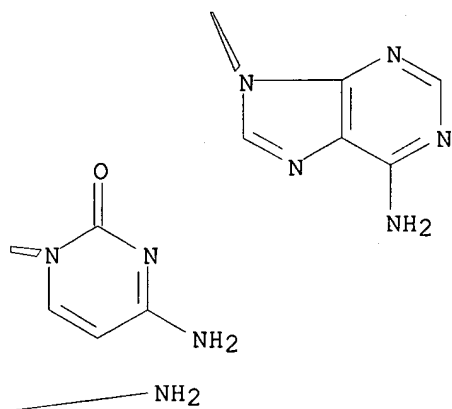


PAGE 2-A

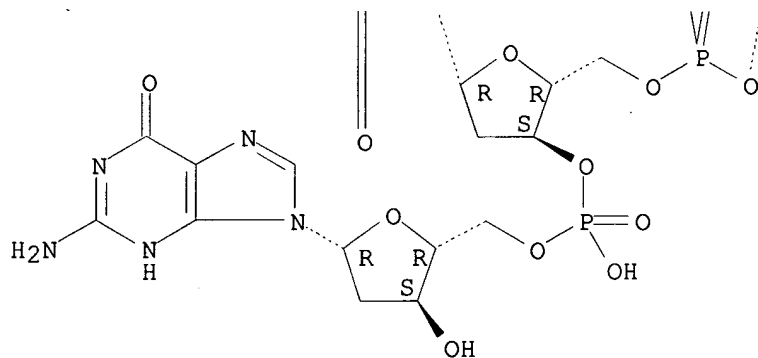




PAGE 2-B



PAGE 3-A



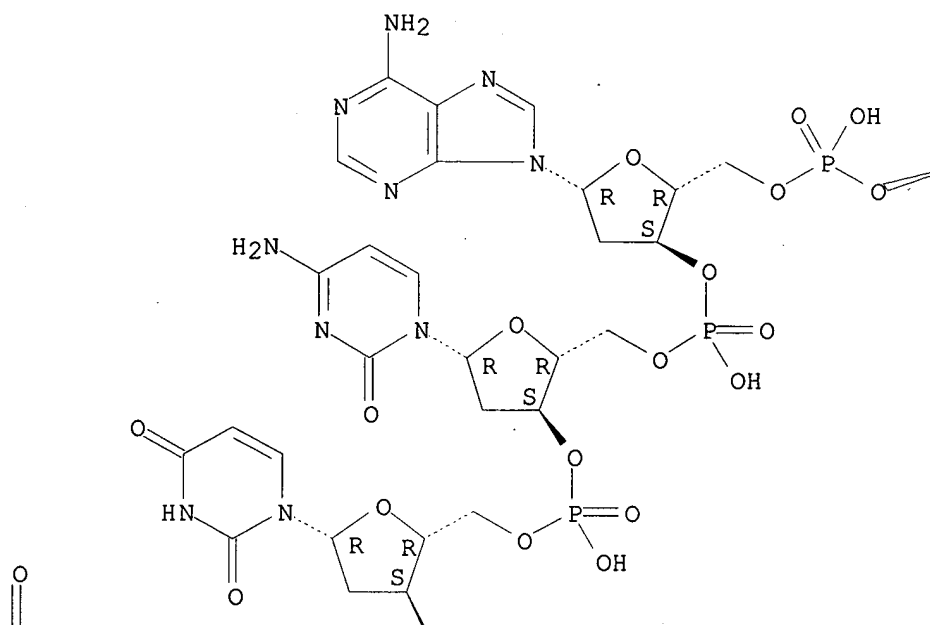
RN 189237-71-6 HCAPLUS

CN Guanosine, 5-[(1E)-3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxyuridylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyuridylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

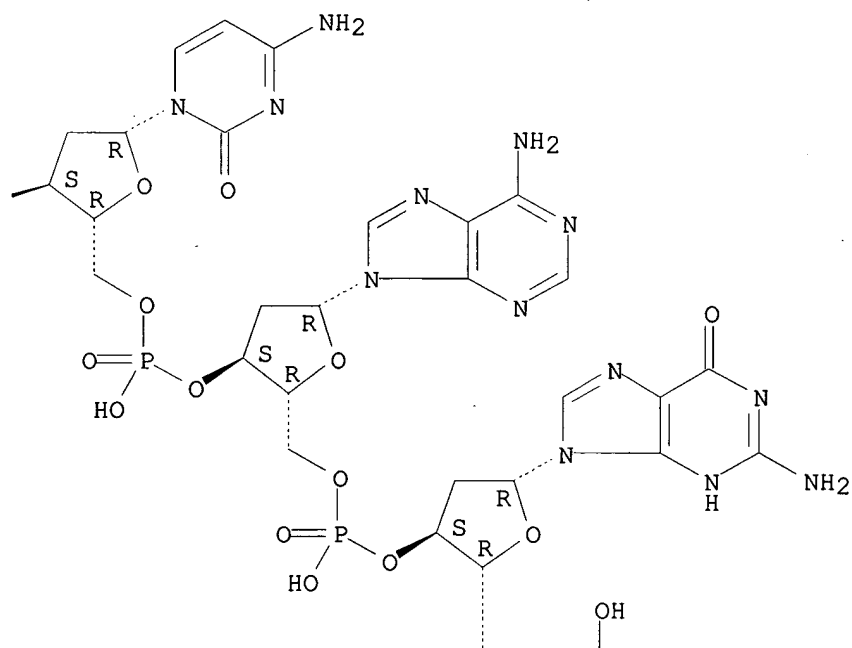
Absolute stereochemistry.

Double bond geometry as shown.

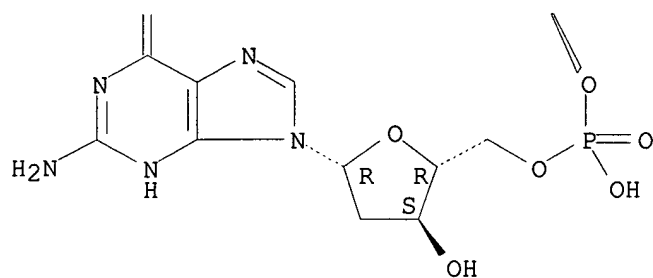
PAGE 1-A



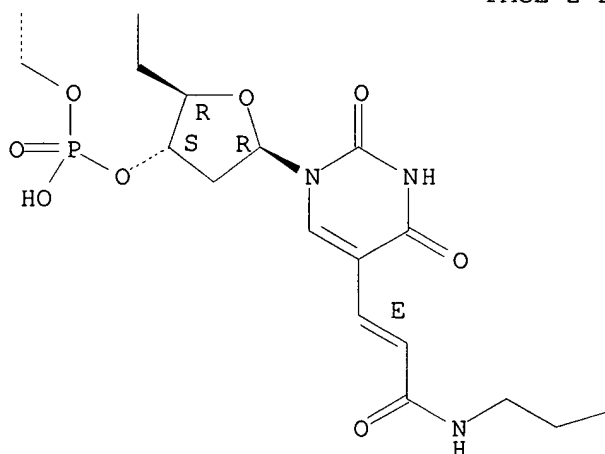
PAGE 1-B



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PAGE 2-C

—NH<sub>2</sub>

RN 189237-72-7 HCAPLUS

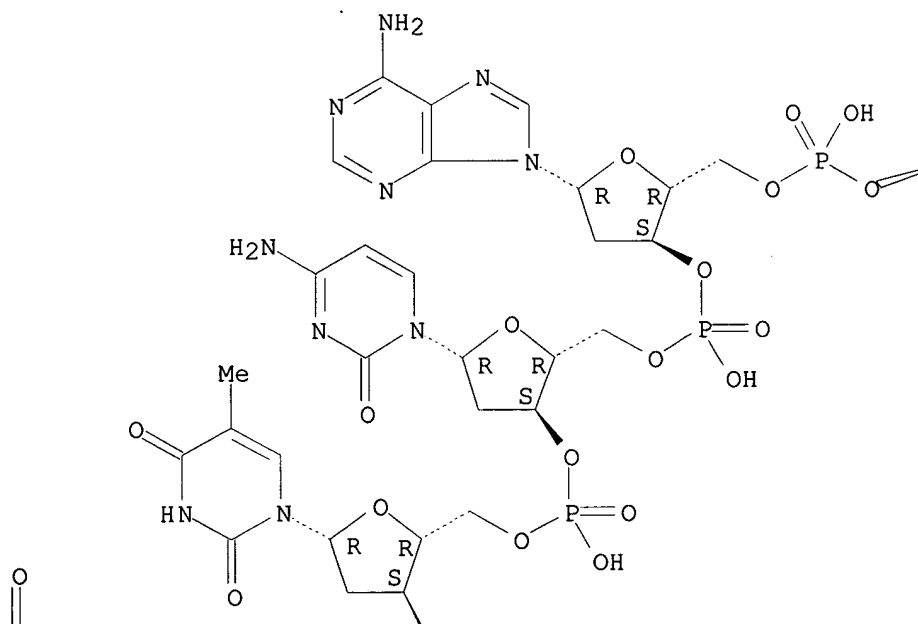
Searched by John Dantzman

308-4488

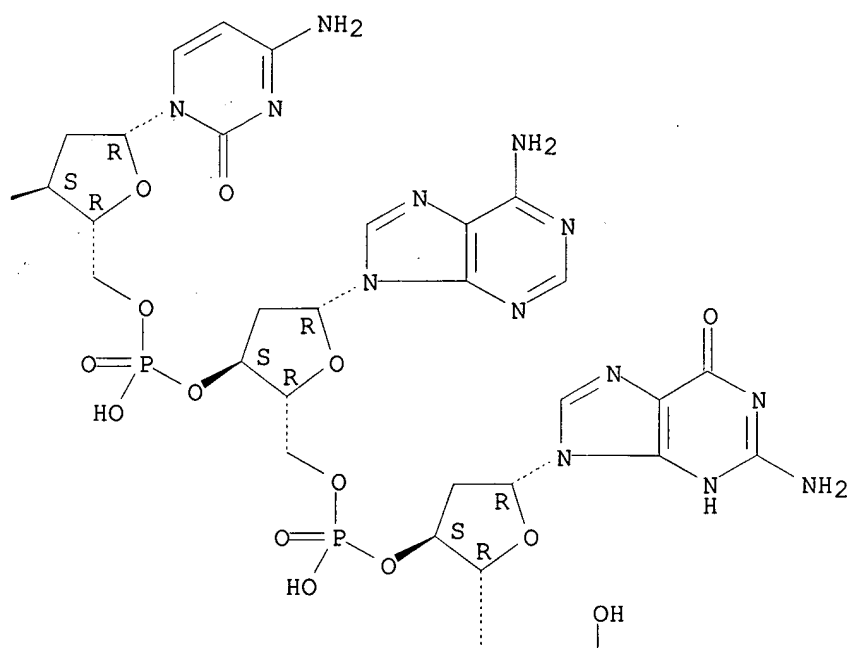
CN Guanosine, 5-[(1E)-3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxyuridylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

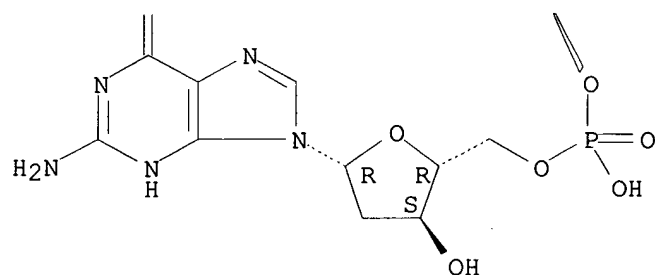
PAGE 1-A



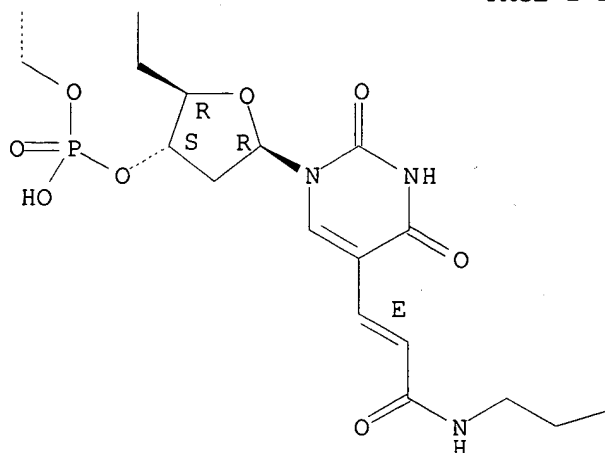
PAGE 1-B



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PAGE 2-B



PAGE 2-C

—NH<sub>2</sub>

RN 189237-73-8 HCAPLUS

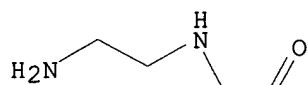
CN Guanosine, 5-[(1E)-3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-  
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 deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
 deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-5-[(1E)-3-

[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxyuridylyl-(3'.fwdarw.5')-2'-  
 deoxy- (9CI) (CA INDEX NAME)

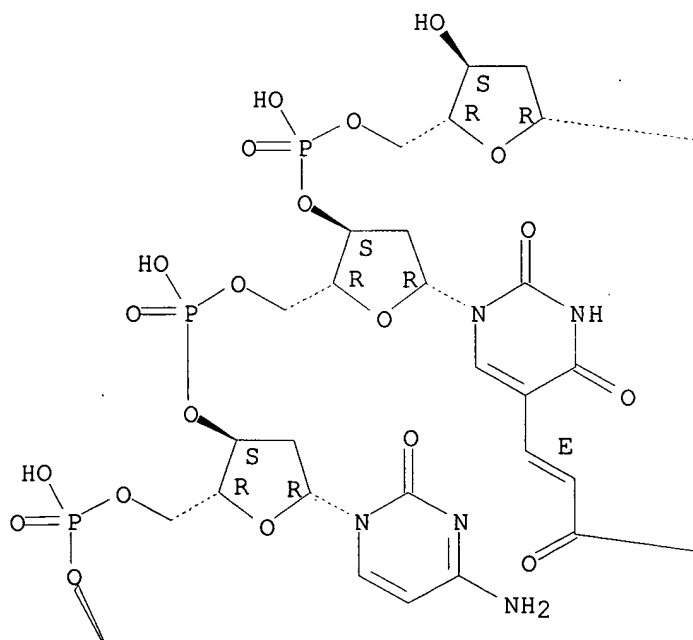
Absolute stereochemistry.

Double bond geometry as shown.

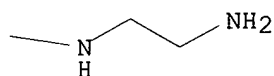
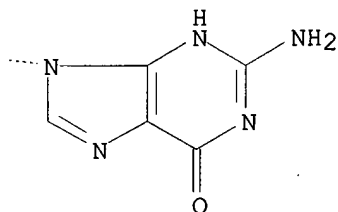
PAGE 1-A



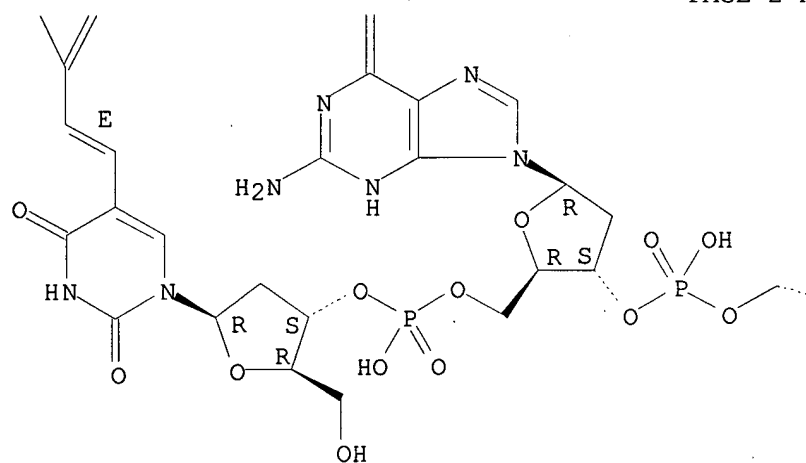
PAGE 1-B



PAGE 1-C

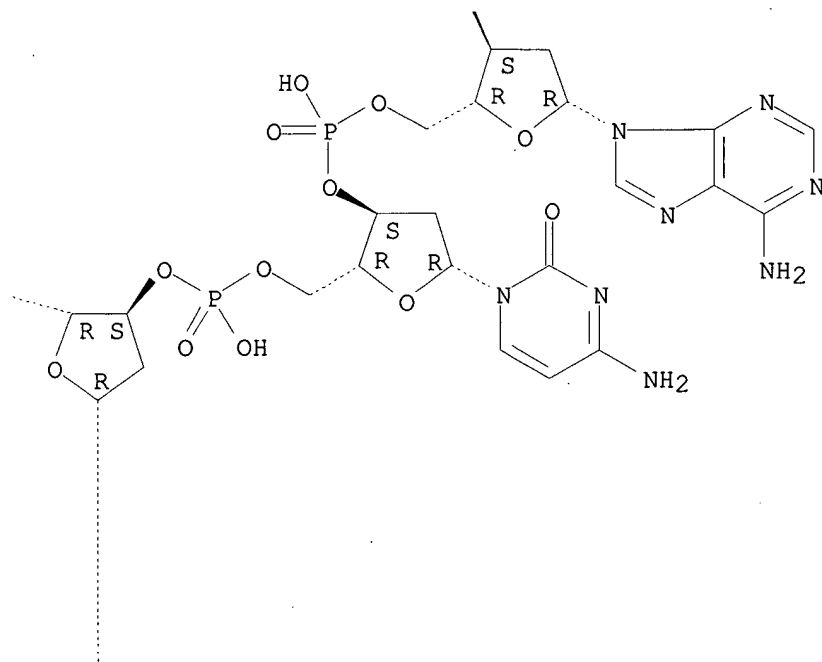


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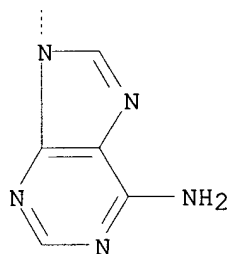




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PAGE 3-B



=> d bib abs hitstr 144 27

L44 ANSWER 27 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1996:625191 HCAPLUS

DN 125:248335

TI Printing methodology and apparatus for synthesis of oligonucleotide library arrays

IN Pease, R. Fabian; Fodor, Stephen P. A.; Mcgall, Glenn; Goss, Virginia; Goldberg, Martin J.; Stryer, Lubert; Rava, Richard P.; Winkler, James L.

PA Affymax Technologies N.V., Neth. Antilles

SO Eur. Pat. Appl., 35 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 728520	A1	19960828	EP 1996-300860	19960208
	R: DE, FR, GB, IT, NL				
	US 5599695	A	19970204	US 1995-395604	19950227
	US 5831070	A	19981103	US 1996-635272	19960419
PRAI	US 1995-395604		19950227		

AB A method and app. are claimed for selectively applying a print material onto a substrate for the synthesis of an array of oligonucleotides at selected regions of a substrate. The print material includes a barrier material, a monomer sequence, a nucleoside, a deprotection agent, a carrier material, among other materials. The method and app. also relies upon std. DMT based chem., and a vapor phase deprotection agent such as solid TCA and the like. Thus, e.g., a 10 nM target 5'-GCGTAGGC-fluorescein (analyte) was exposed to a 2 .times. 2 array of four probes 3'-CGCATCCG (match), 3'-CGCTCCG (deletion), 3'-CGCTTCCG (substitution), and 3'-CGCATTCCG (addn). and then scanned with a scanner: in a photograph of the fluorescent output, the matched area is the most strongly fluorescing (indicating the strongest hybridization to the match) and the weakest to the deletion.

IT 182003-38-9DP, surface-bound

RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); PROC (Process); USES (Uses)

(printing methodol. and app. for synthesis of oligonucleotide library arrays)

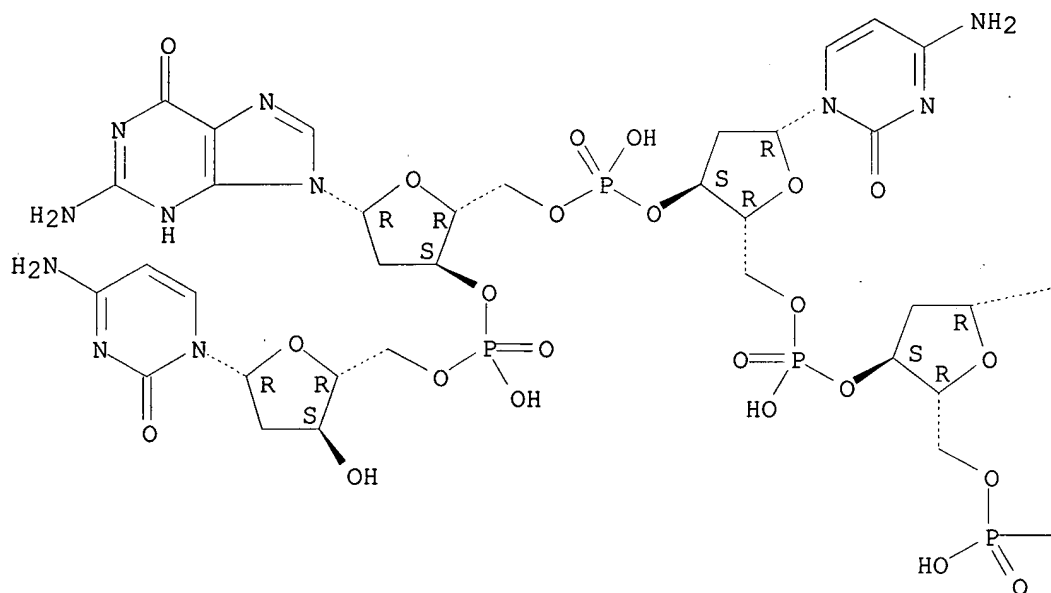
RN 182003-38-9 HCAPLUS

CN Cytidine,

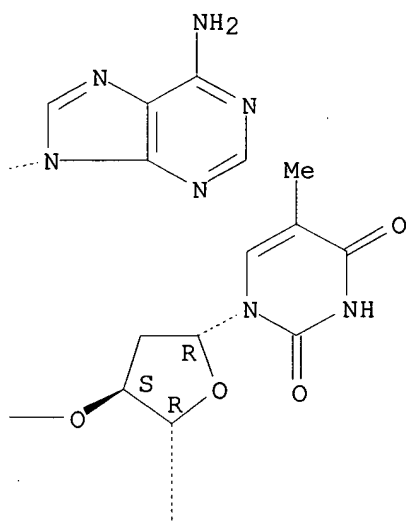
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

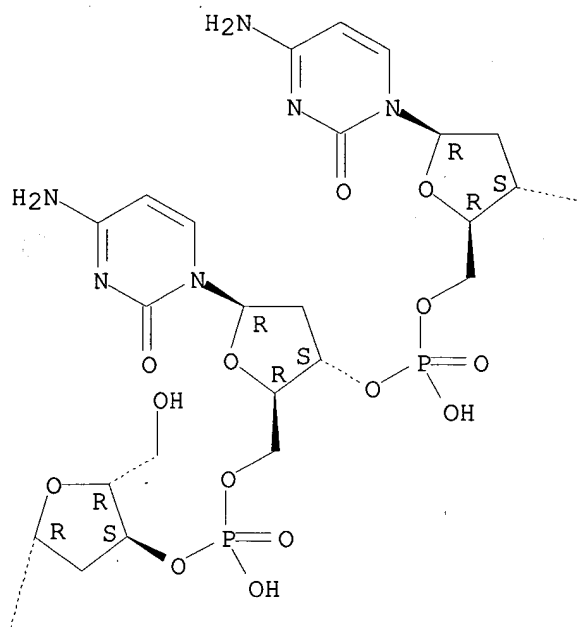
PAGE 1-A



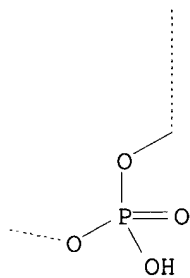
PAGE 1-B



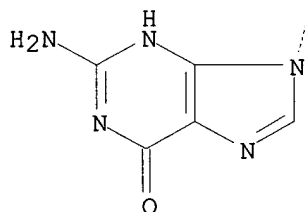
PAGE 2-A



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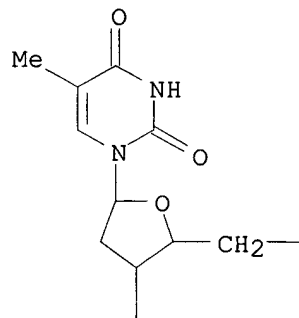


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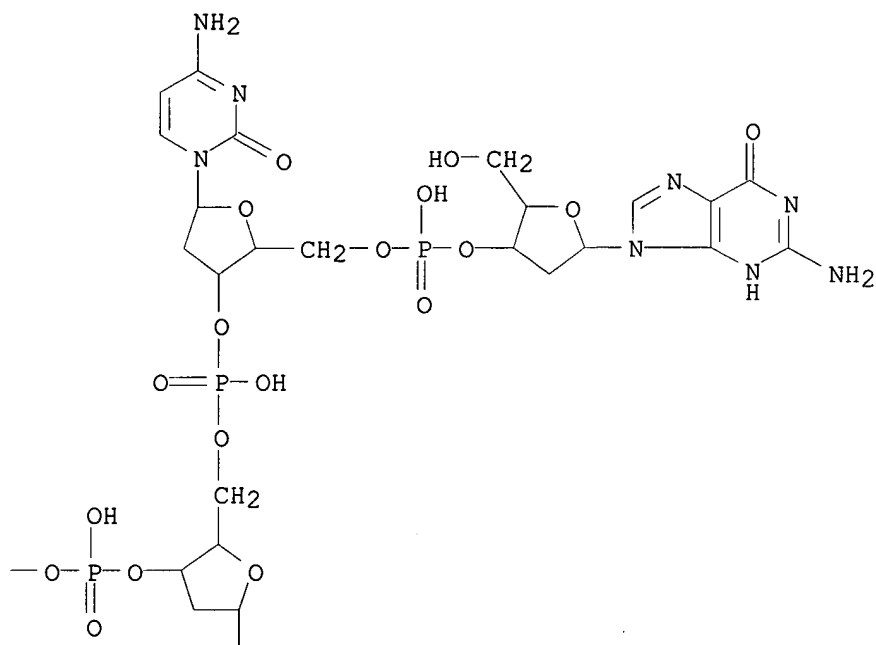


IT 182003-43-6D, surface-bound, fluorescein labeled  
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)  
(printing methodol. and app. for synthesis of oligonucleotide  
library arrays)  
RN 182003-43-6 HCAPLUS  
CN Cytidine,  
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-  
2'-deoxycytidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-  
deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy-, double-stranded complementary  
(9CI) (CA INDEX NAME)  
  
CM 1  
  
CRN 182003-42-5  
CMF C78 H98 N33 O46 P7  
CDES 5:ALL,B-D-ERYTHRO

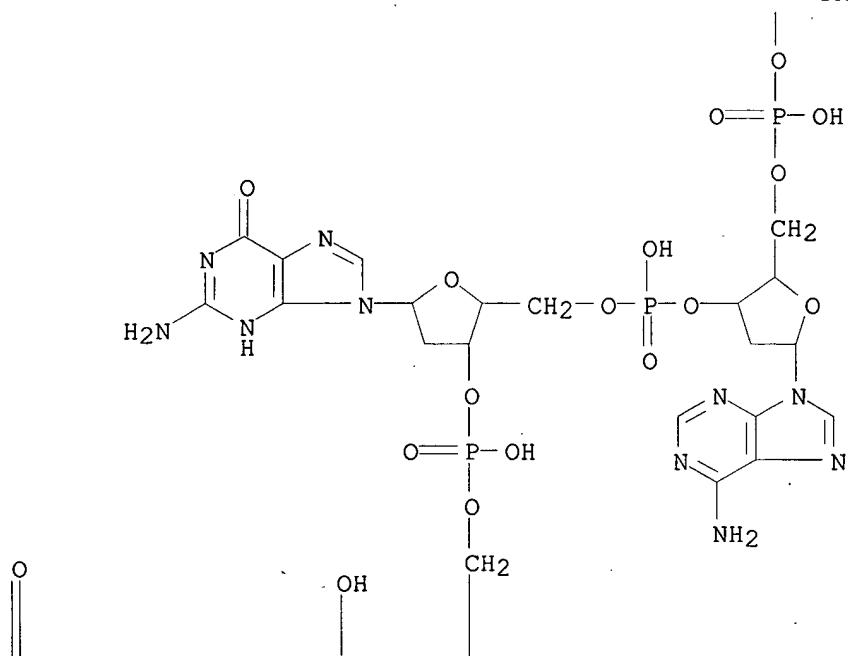
PAGE 1-A



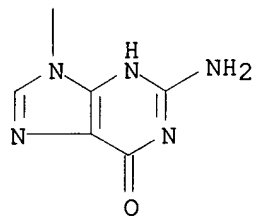
PAGE 1-B



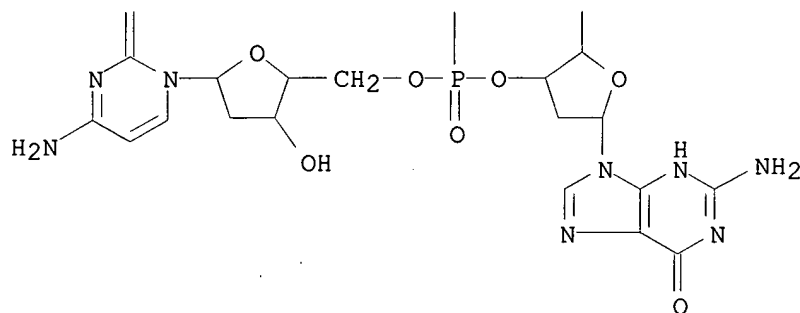
PAGE 2-A



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CM 2

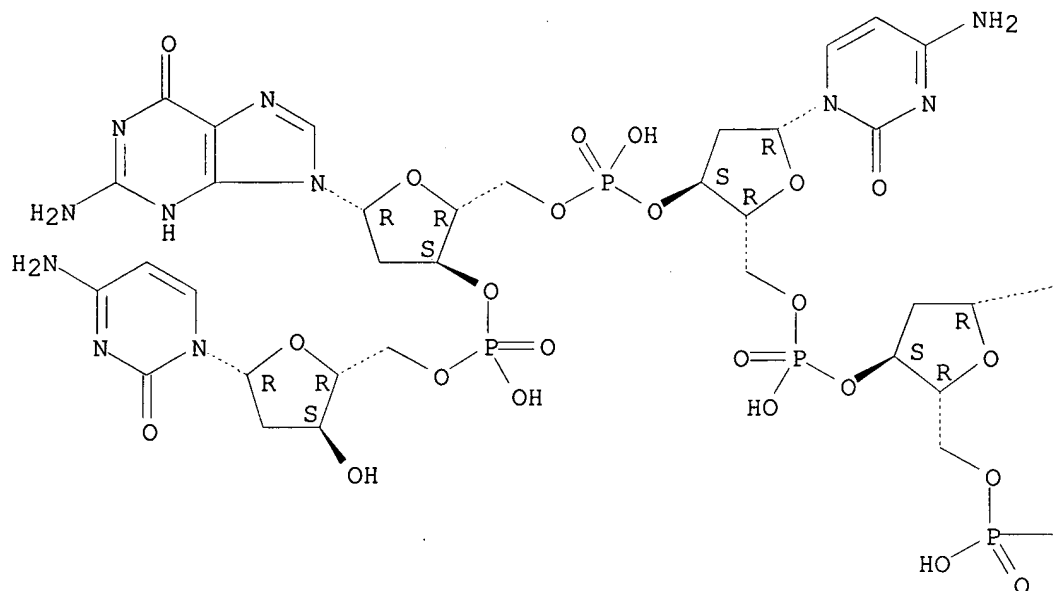
CRN 182003-38-9

CMF C76 H98 N29 O46 P7

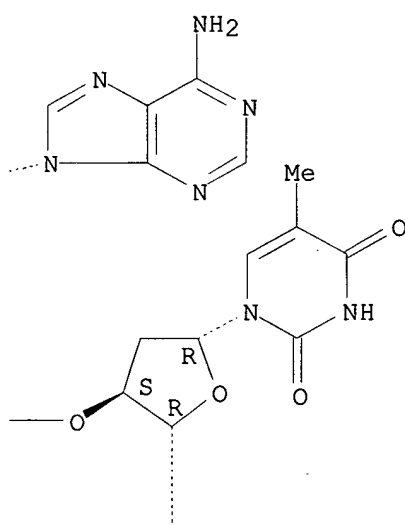
CDES 5:ALL,B-D-ERYTHRO

Absolute stereochemistry.

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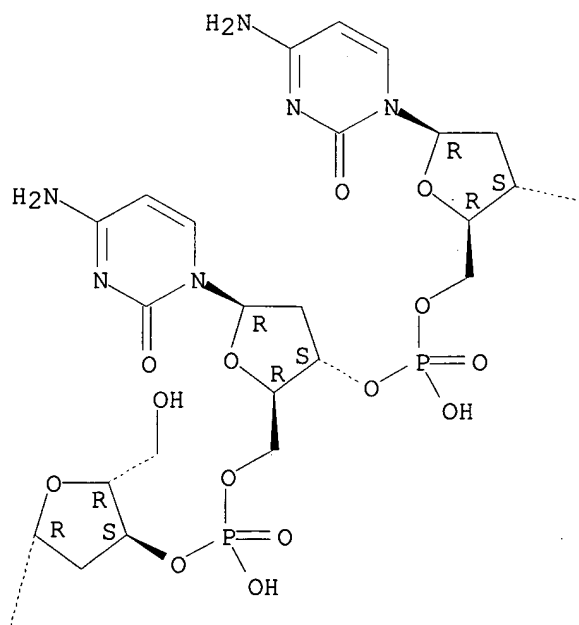


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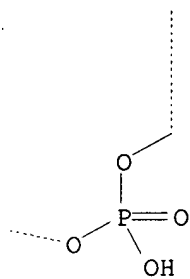




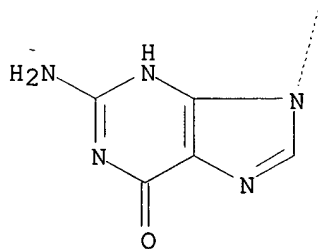
PAGE 2-A



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08/884873

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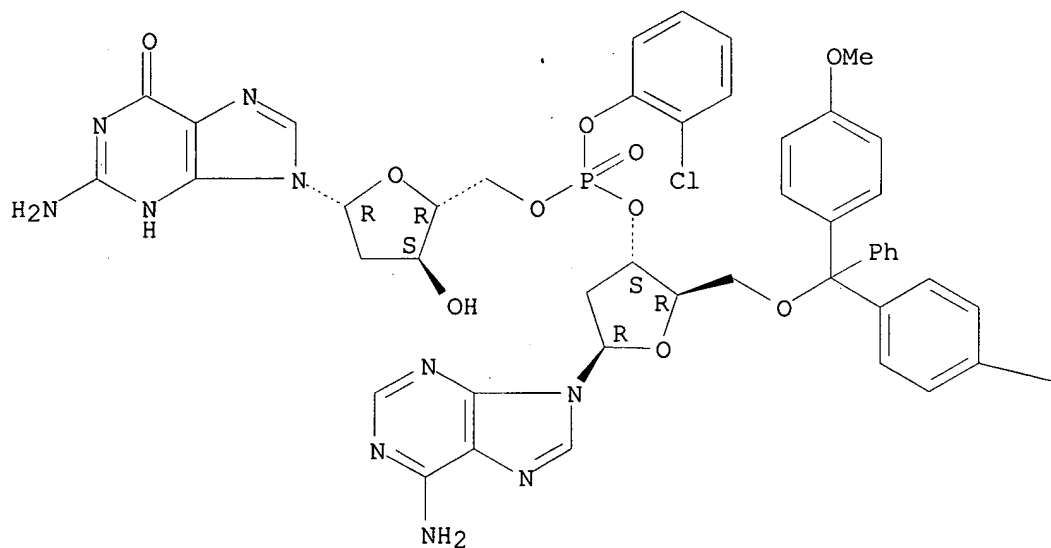
308-4488

=> d bib abs hitstr 144 28

L44 ANSWER 28 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1996:622299 HCAPLUS  
DN 125:268402  
TI A convenient approach to the synthesis of trinucleotide  
phosphoramidites-synthons for the generation of oligonucleotide/peptide  
libraries  
AU Kayushin, A. L.; Korosteleva, M. D.; Miroshnikov, A. I.; Kosch, W.;  
Zubov,  
D.; Piel, N.  
CS Shemiakin Ovchinnikov Inst. Bioorg. Chem., Russian Acad. Sci., Moscow,  
117871, Russia  
SO Nucleic Acids Res. (1996), 24(19), 3748-3755  
CODEN: NARHAD; ISSN: 0305-1048  
DT Journal  
LA English  
AB Trinucleotide phosphoramidites that correspond to the codons of all 20  
amino acids were synthesized in high yield on a 5g scale. Precursors of  
those amidites, trinucleotide phosphotriesters, have been prepd. using  
the  
phosphotriester approach without protection of the 3'-hydroxyl function.  
The structures of trinucleotide phosphotriesters and intermediates were  
confirmed by 1H- and 31P-NMR spectra, mass-spectra, and by anal. of  
SPDE-hydrolyzates of deprotected preps. Purity of the target products  
has been confirmed by test reactions. The synthons have been used for  
automated synthesis of oligonucleotides and corresponding libraries by a  
phosphite-triester approach. A 54mer, contg. 12 randomized internal  
bases, and a 72mer with 24 internal randomized bases have been  
synthesized.  
IT 182759-18-8P 182759-19-9P 182759-21-3P  
182759-22-4P 182759-23-5P 182759-27-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(as 5'-O-dimethoxytritylated dinucleotide; synthesis of trinucleotide  
phosphoramidite synthetic codons and oligonucleotide  
**combinatorial libraries** incorporating them)  
RN 182759-18-8 HCAPLUS  
CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-  
deoxyadenylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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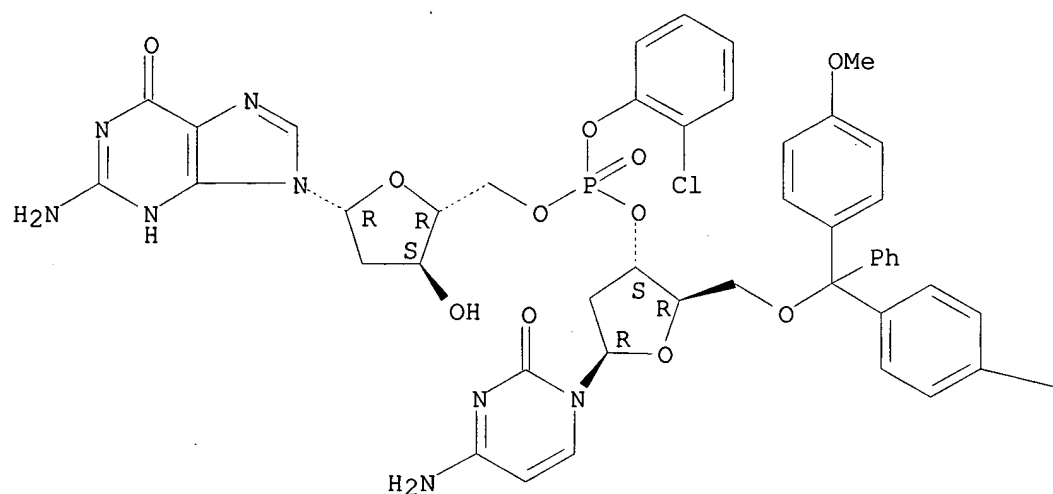
— OMe

RN 182759-19-9 HCAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxycytidyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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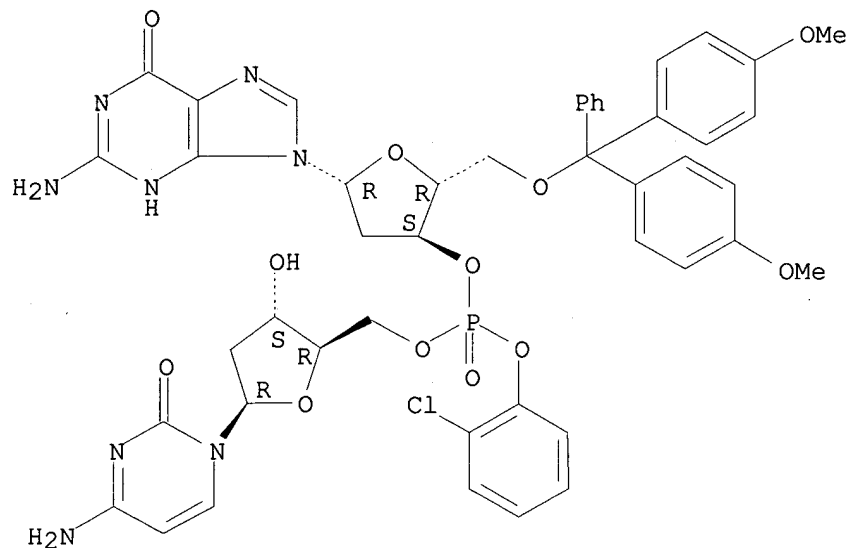
PAGE 1-B

— OMe

RN 182759-21-3 HCAPLUS

CN Cytidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

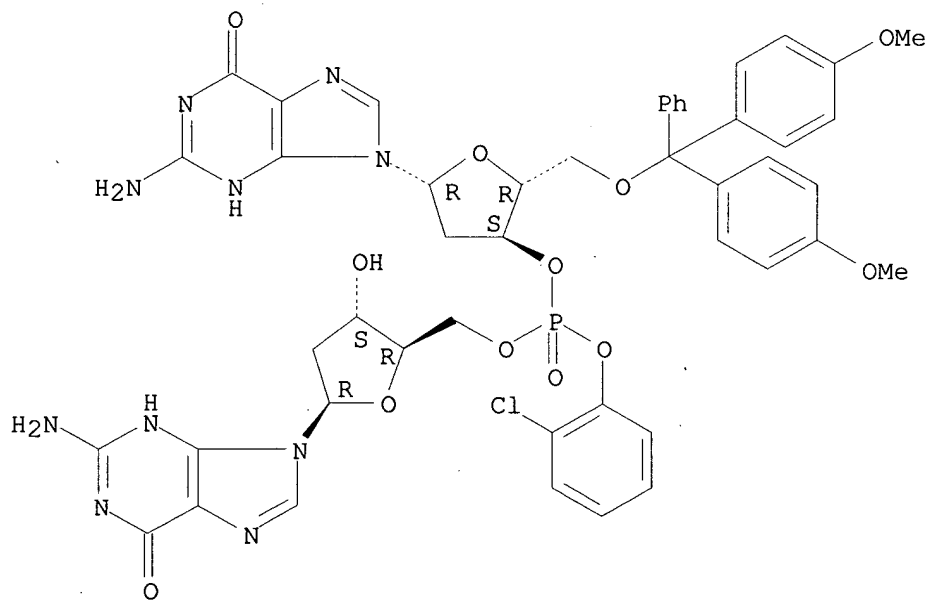
Absolute stereochemistry.



RN 182759-22-4 HCAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



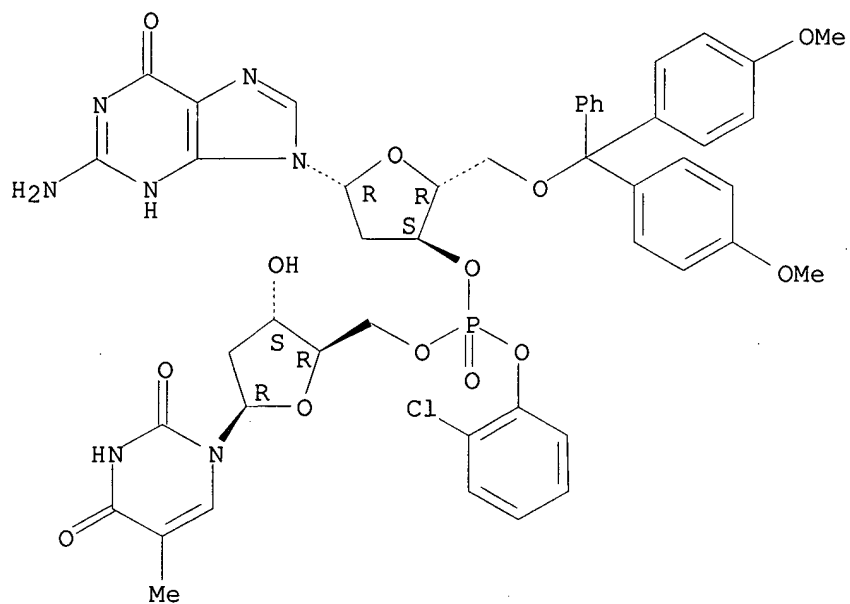
RN 182759-23-5 HCAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Searched by John Dantzman

308-4488

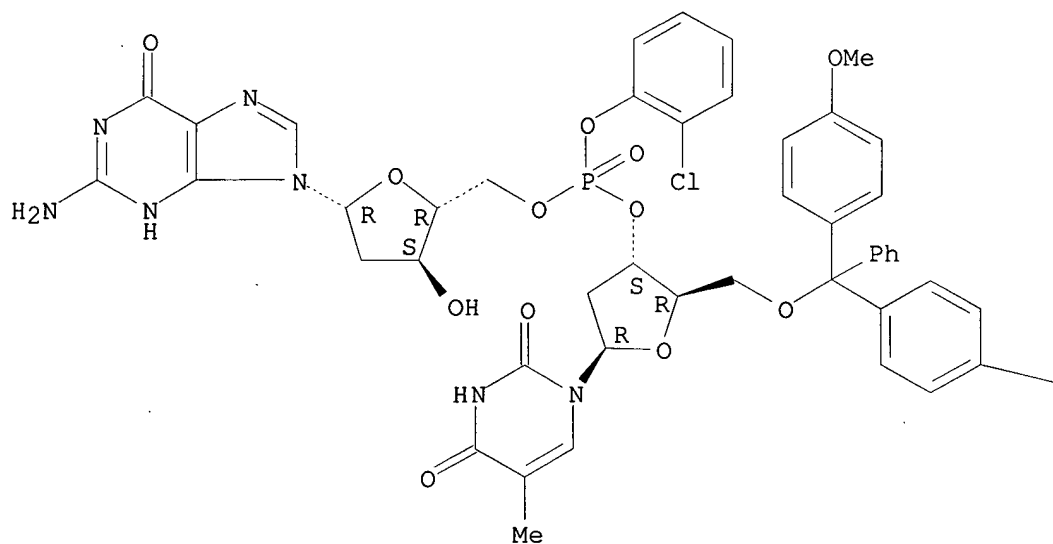


RN 182759-27-9 HCAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)thymidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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— OMe

IT 182759-58-6P 182759-59-7P 182759-61-1P  
182759-62-2P 182759-63-3P 182759-64-4P  
182759-65-5P 182759-66-6P 182759-67-7P  
182759-68-8P 182759-71-3P 182759-72-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(as 5'-O-dimethoxytritylated trinucleotide phosphoramidite; synthesis  
of trinucleotide phosphoramidite synthetic codons and oligonucleotide  
**combinatorial libraries** incorporating them)

RN 182759-58-6 HCAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-  
deoxyadenylyl-(3'.fwdarw.5')-P-(2-chlorophenyl)thymidylyl-(3'.fwdarw.5')-  
2'-deoxy-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.

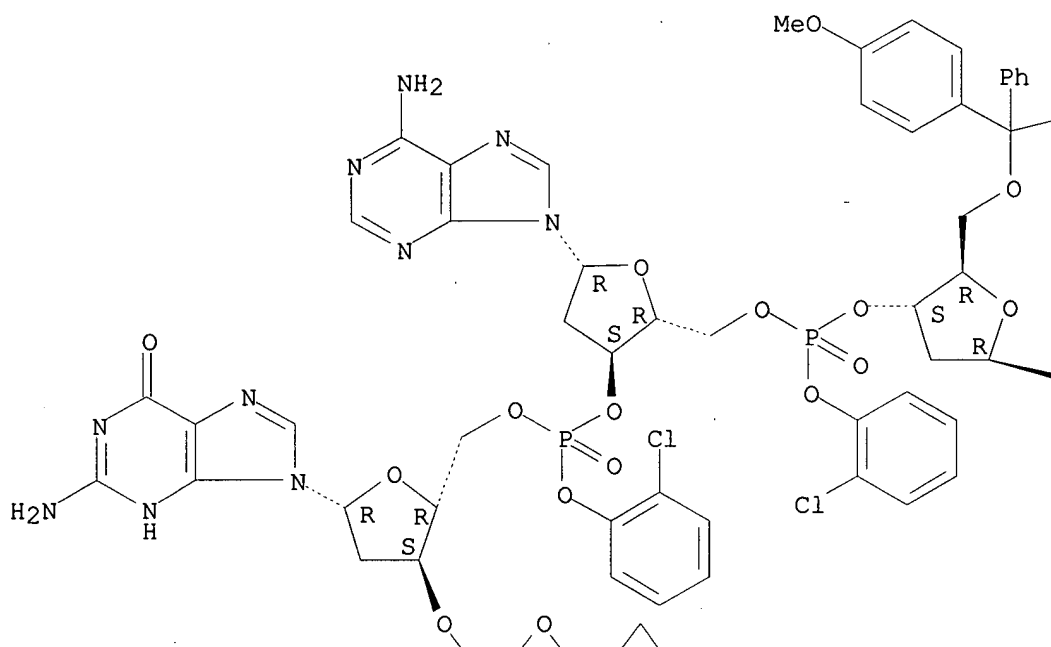




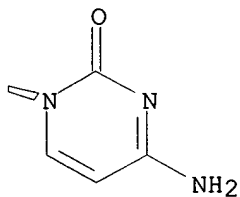
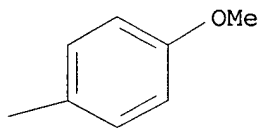
CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxycytidylyl-(3'.fwdarw.5')-P-(2-chlorophenyl)-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxy-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

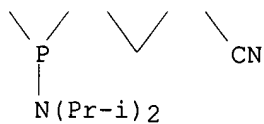
PAGE 1-A



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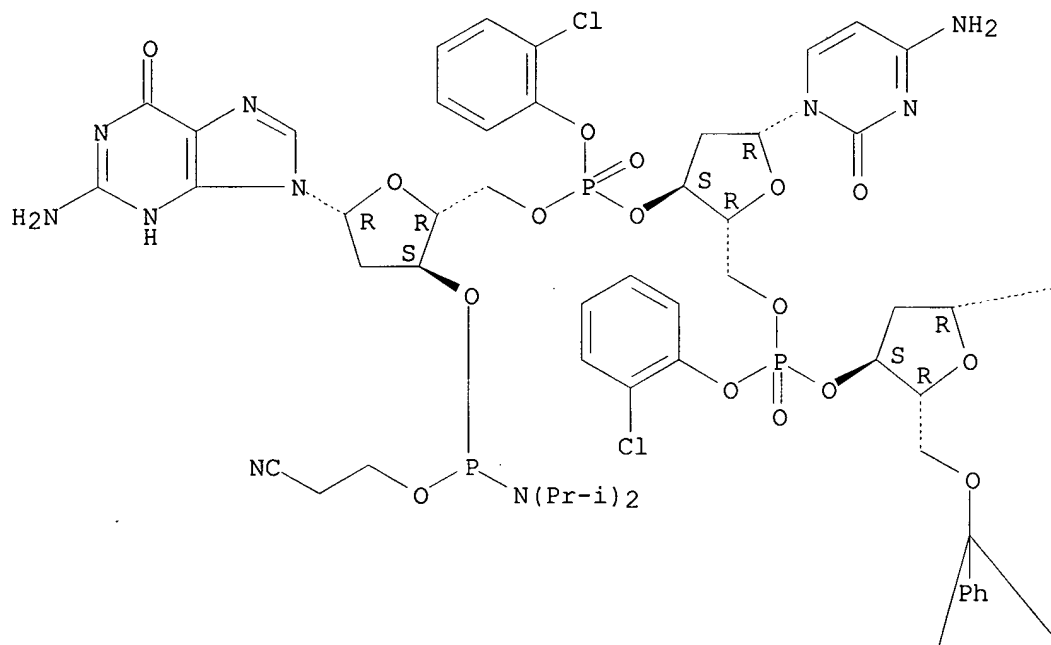


RN 182759-61-1 HCAPLUS

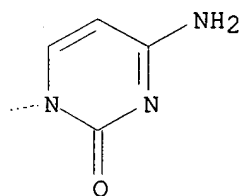
CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxycytidyl-(3'.fwdarw.5')-P-(2-chlorophenyl)-2'-deoxycytidyl-(3'.fwdarw.5')-2'-deoxy-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

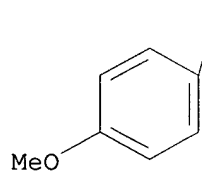
PAGE 1-A



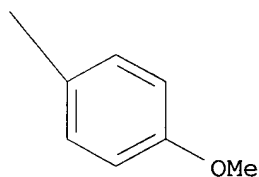
PAGE 1-B



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RN 182759-62-2 HCAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxycytidyl-(3'.fwdarw.5')-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite]

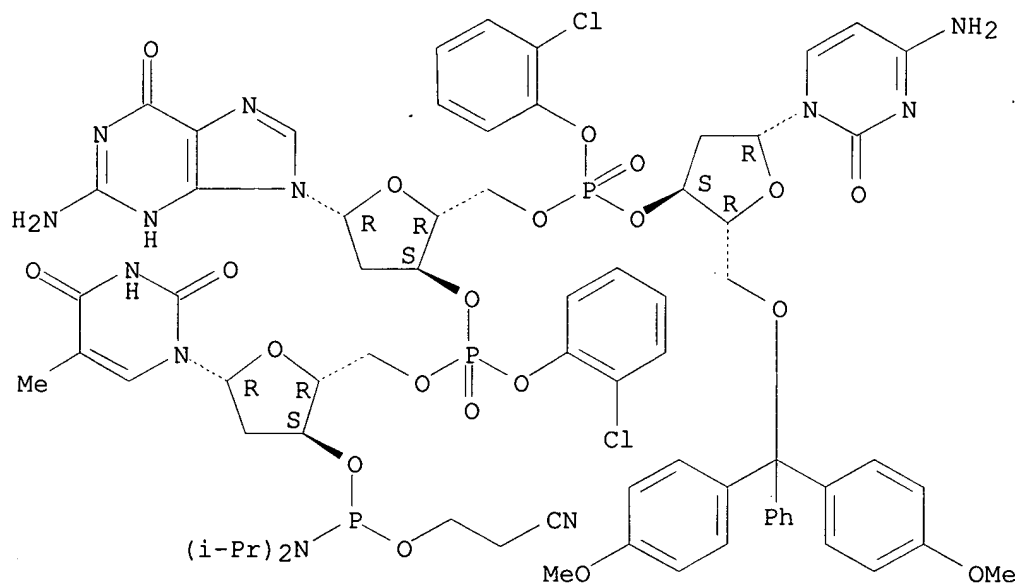
(9CI)

Searched by John Dantzman

308-4488

(CA INDEX NAME)

Absolute stereochemistry.



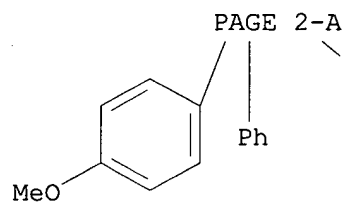
RN 182759-63-3 HCAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-

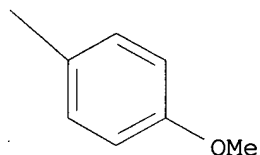
deoxycytidylyl-(3'.fwdarw.5')-P-(2-chlorophenyl)thymidylyl-(3'.fwdarw.5')-  
2'-deoxy-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.

NC1=CC(=O)NC=C1



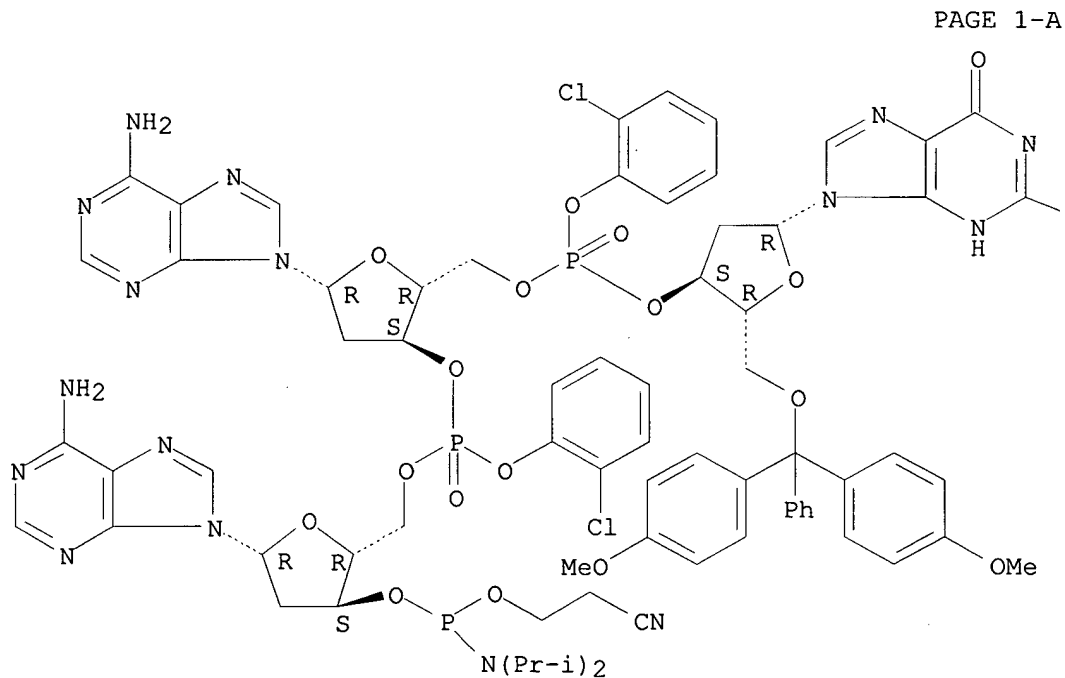
PAGE 2-B



RN 182759-64-4 HCAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')-P-(2-chlorophenyl)-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxy-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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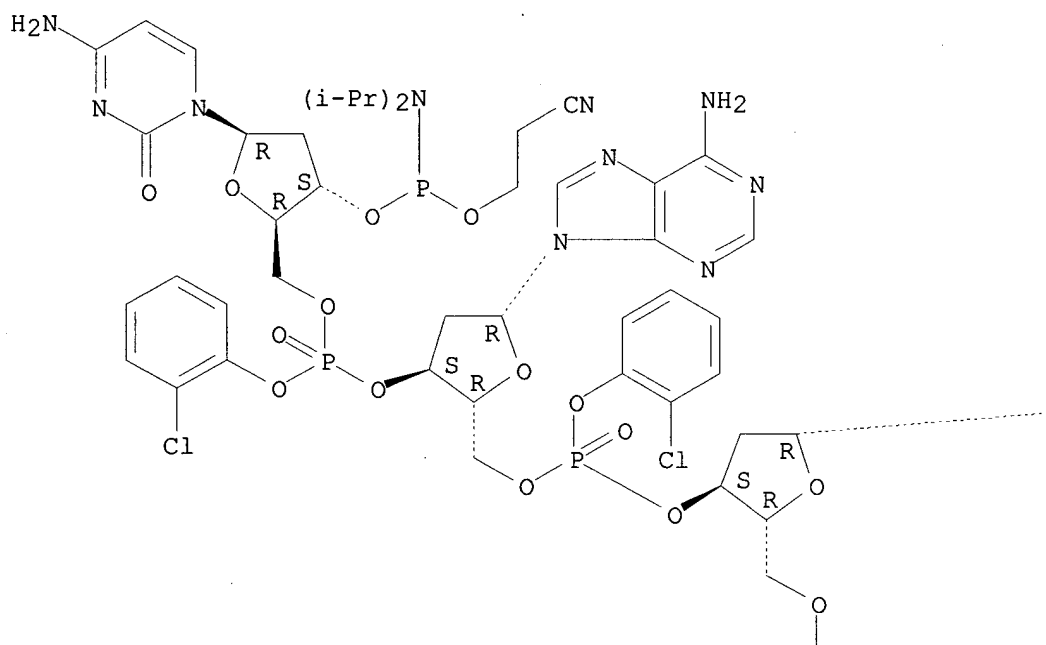
NH<sub>2</sub>

RN 182759-65-5 HCAPLUS

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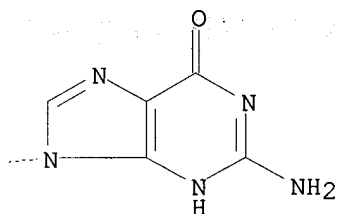
Absolute stereochemistry.

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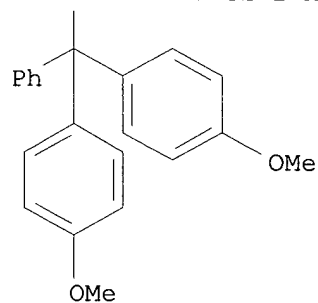




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RN 182759-66-6 HCAPLUS

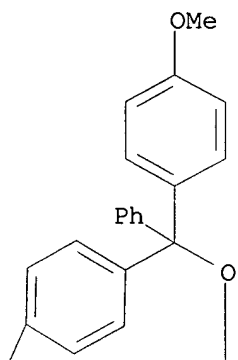
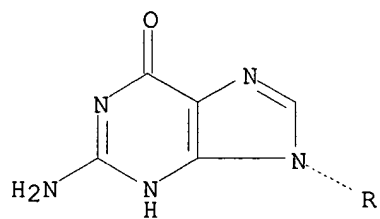
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(9CI)

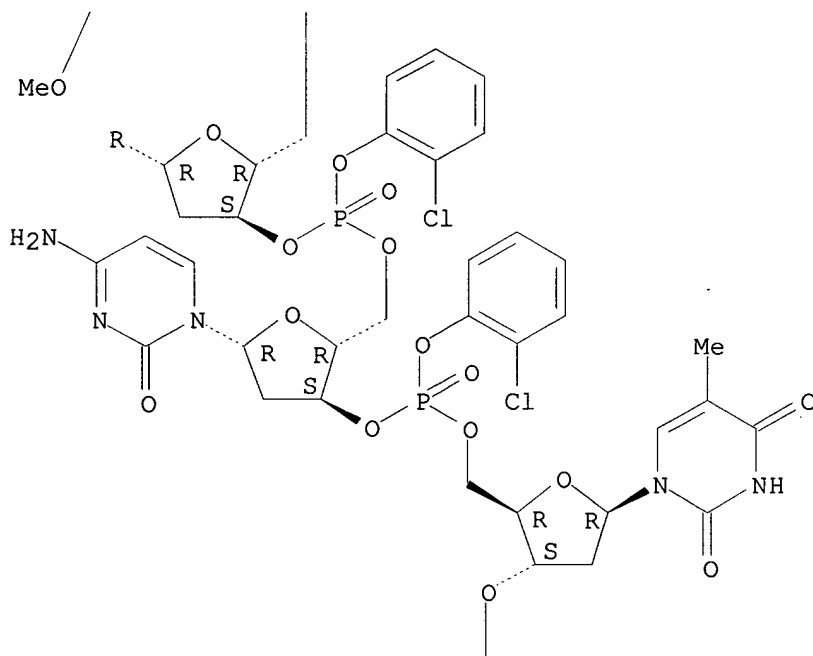
(CA INDEX NAME)

Absolute stereochemistry.

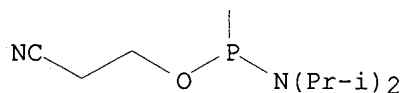
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RN 182759-67-7 HCAPLUS

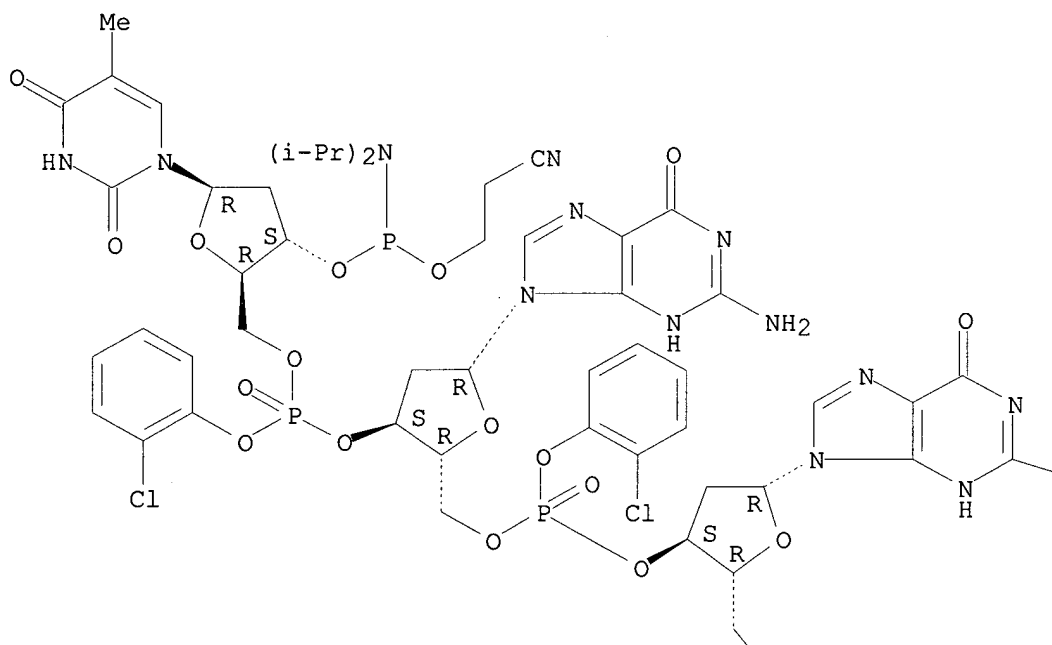
CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite]

(9CI)

(CA INDEX NAME)

Absolute stereochemistry.

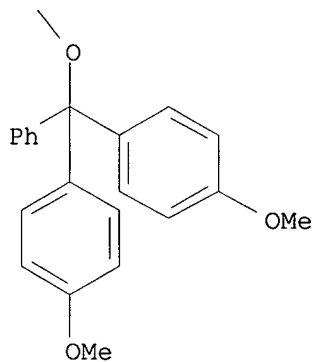
PAGE 1-A



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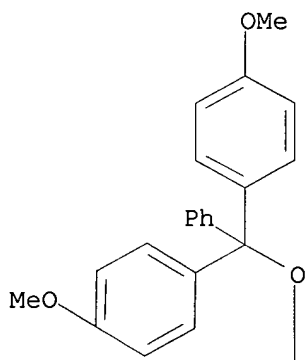
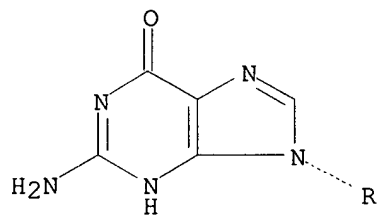
PAGE 2-A



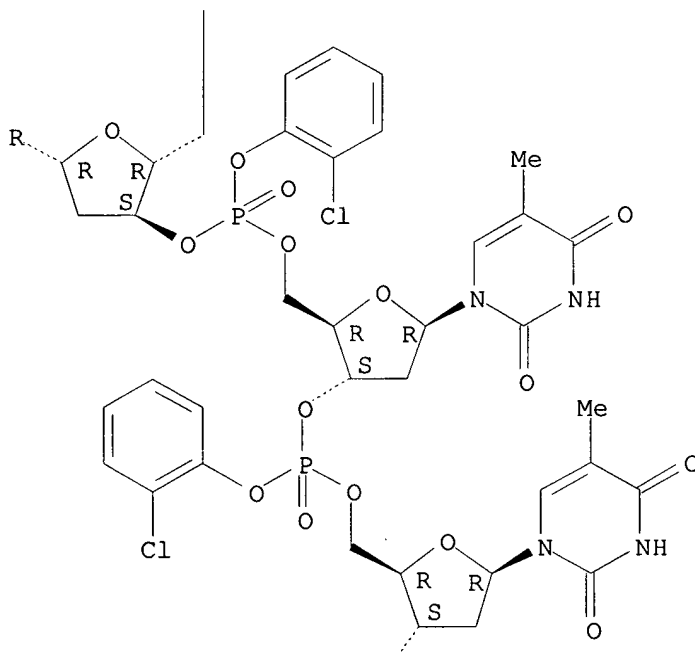
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NAME)

Absolute stereochemistry.

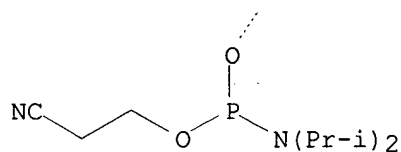
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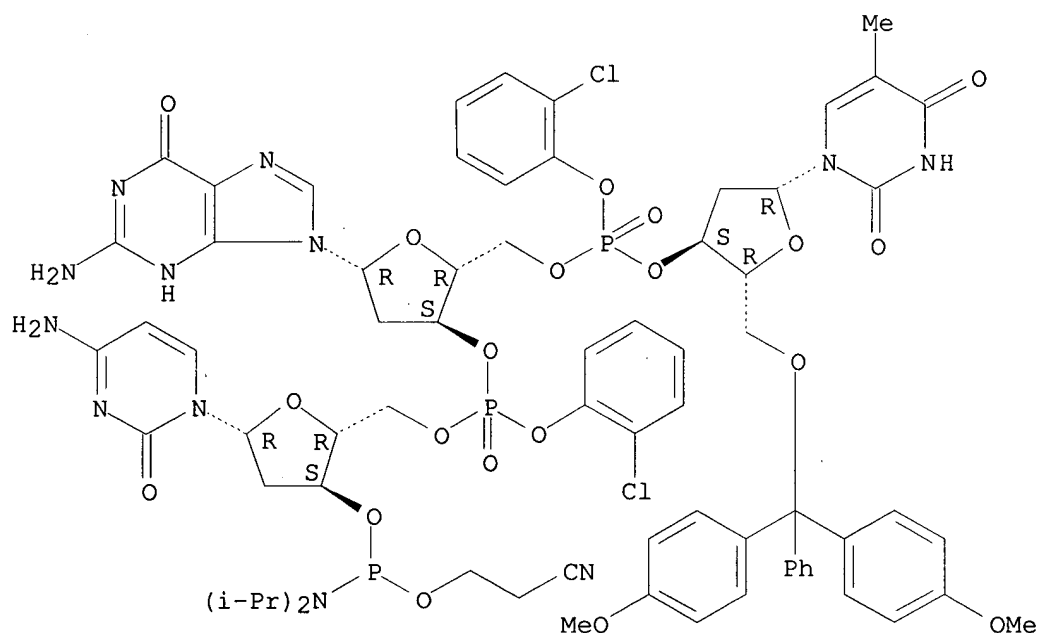


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 methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



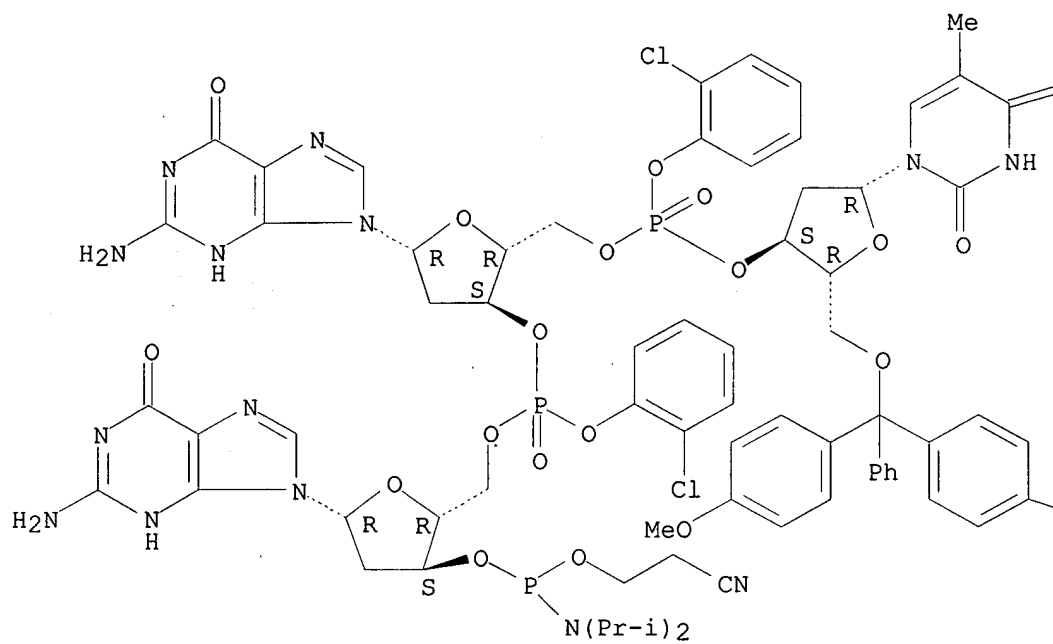
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 (3'.fwdarw.5')-2'-deoxy-, 3'-[2-cyanoethyl bis(1-  
 methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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 $\text{=O}$  $\text{—OMe}$ 

IT 182759-38-2P 182759-39-3P 182759-41-7P  
182759-42-8P 182759-43-9P 182759-44-0P  
182759-45-1P 182759-46-2P 182759-47-3P  
182759-48-4P 182759-50-8P 182759-52-0P

Searched by John Dantzman

308-4488

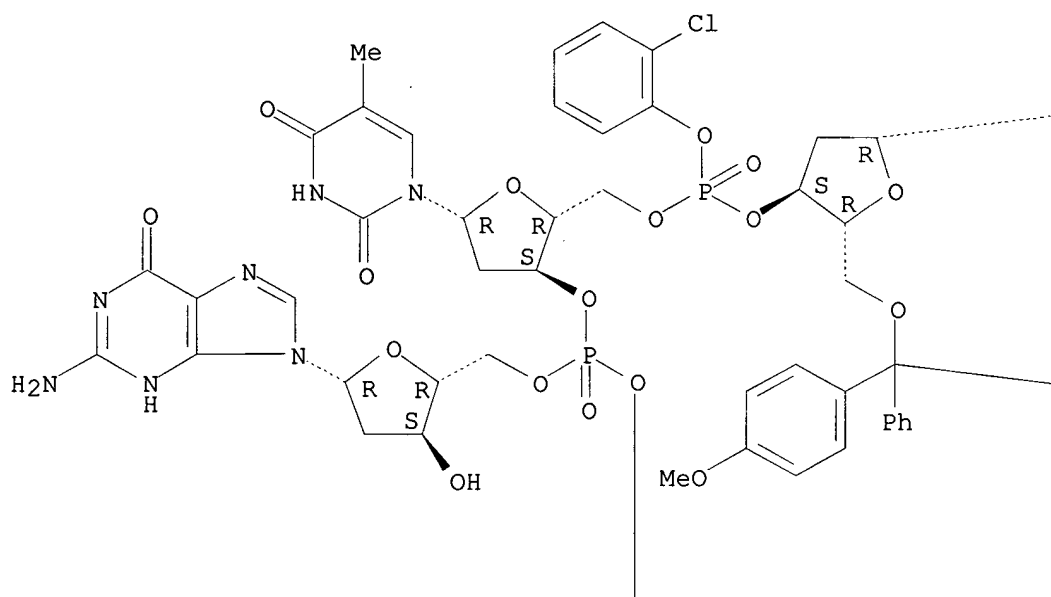
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(as 5'-O-dimethoxytritylated trinucleotide; synthesis of trinucleotide  
phosphoramidite synthetic codons and oligonucleotide  
**combinatorial libraries** incorporating them)

RN 182759-38-2 HCAPLUS

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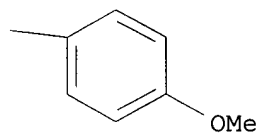
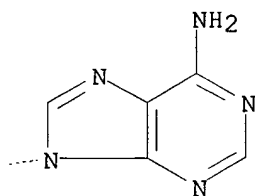
Absolute stereochemistry.

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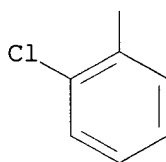




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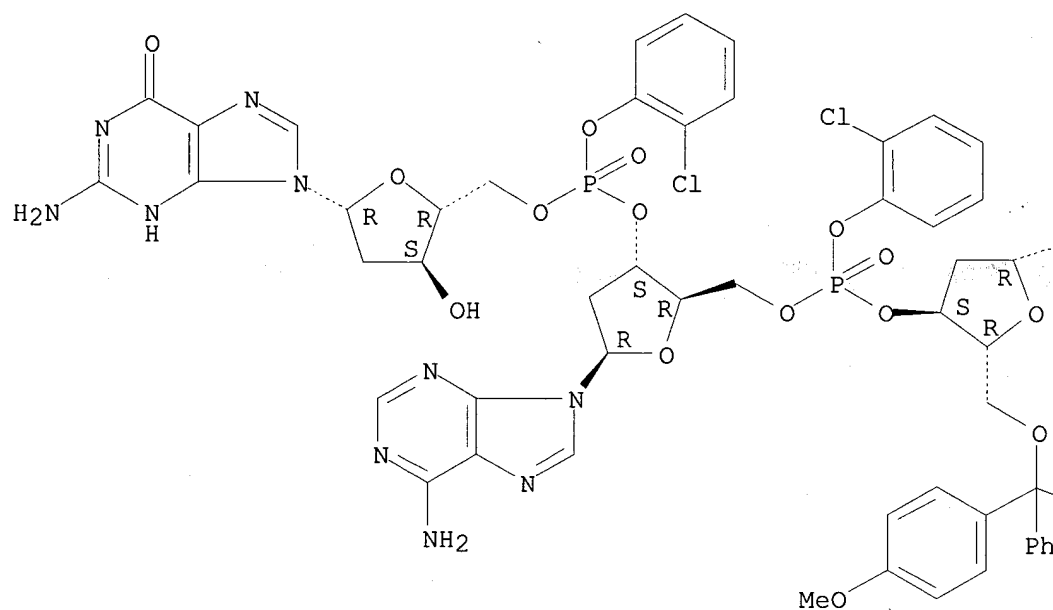
PAGE 2-A



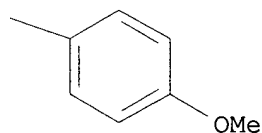
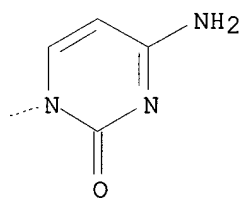
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(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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RN 182759-41-7 HCAPLUS

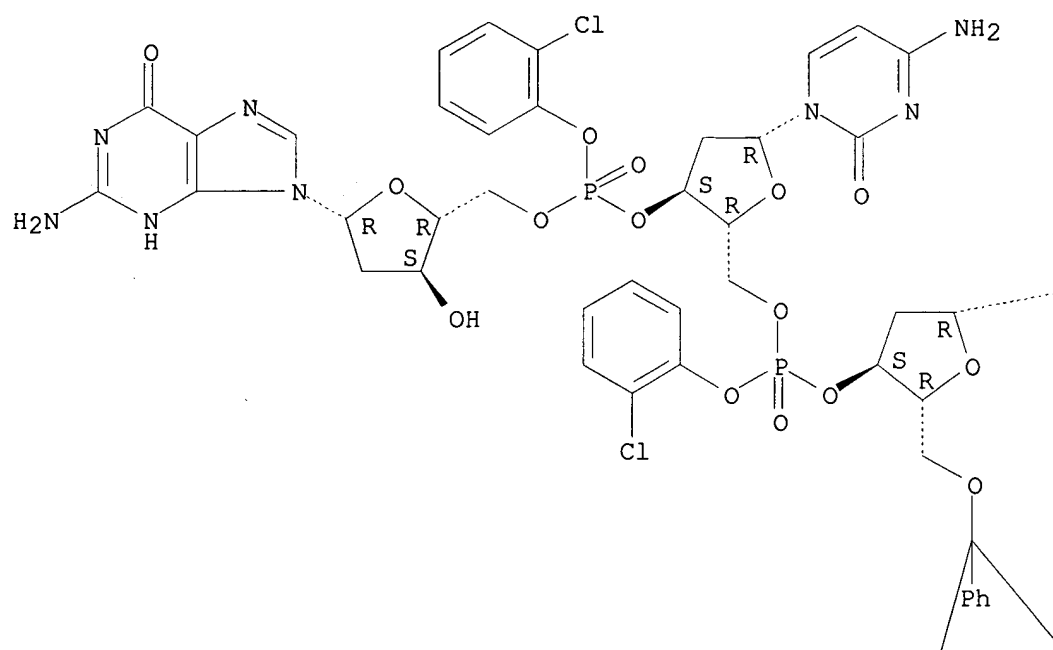
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Searched by John Dantzman 308-4488

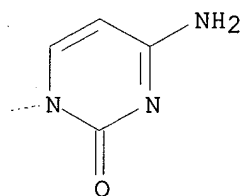
(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

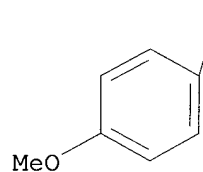
PAGE 1-A



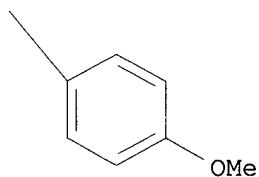
PAGE 1-B



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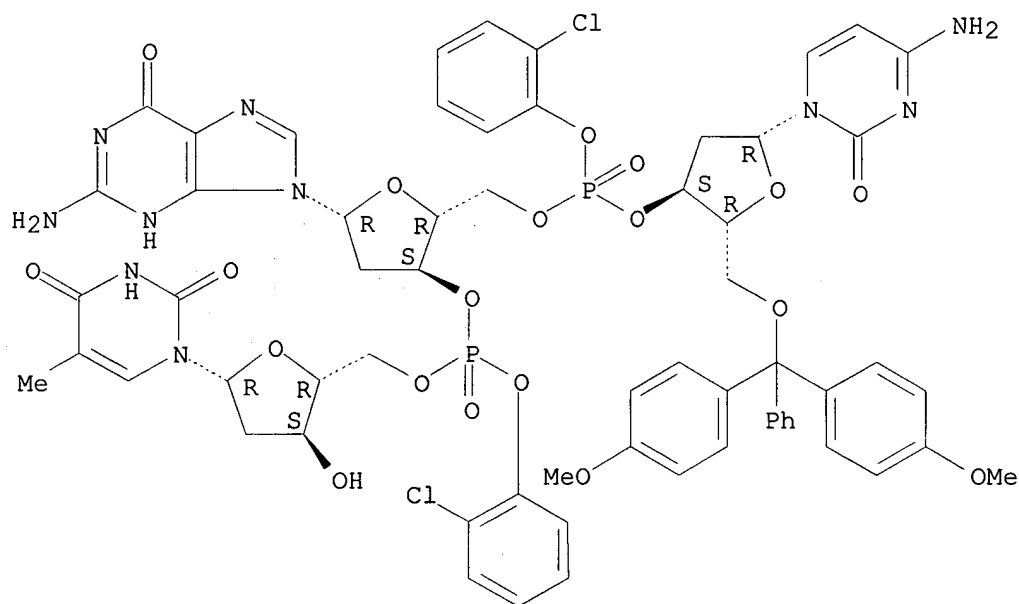


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(3'.fwdarw.5')- (9CI) (CA INDEX NAME)

Searched by John Dantzman

308-4488

Absolute stereochemistry.

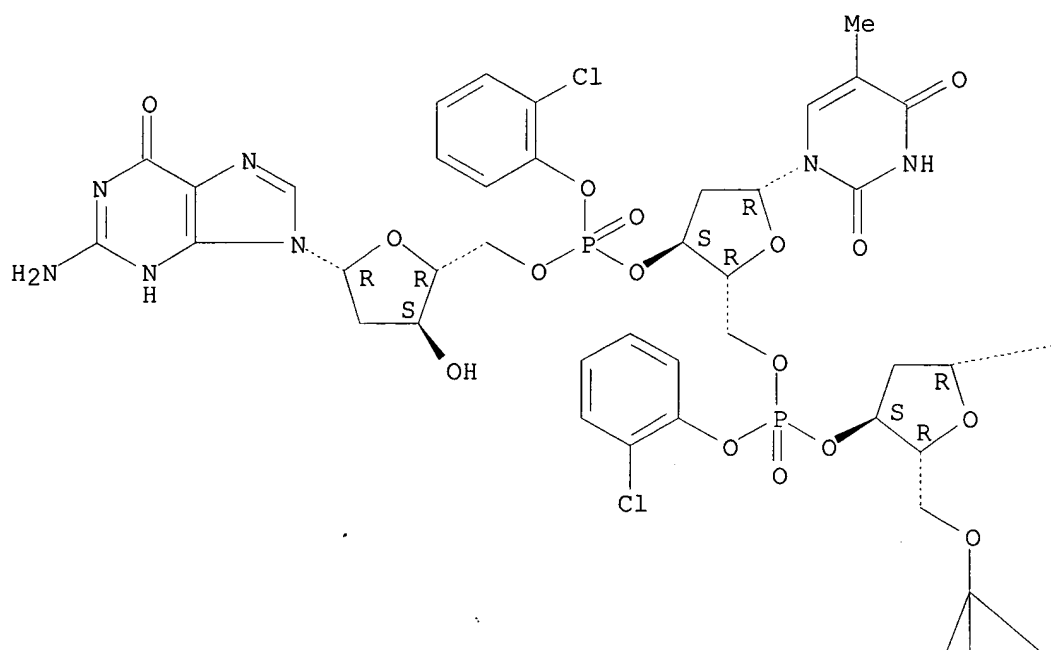


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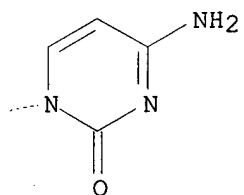
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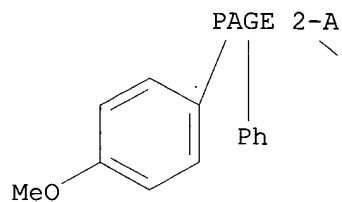
Absolute stereochemistry.

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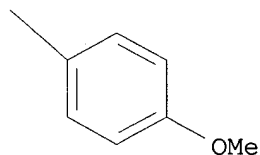


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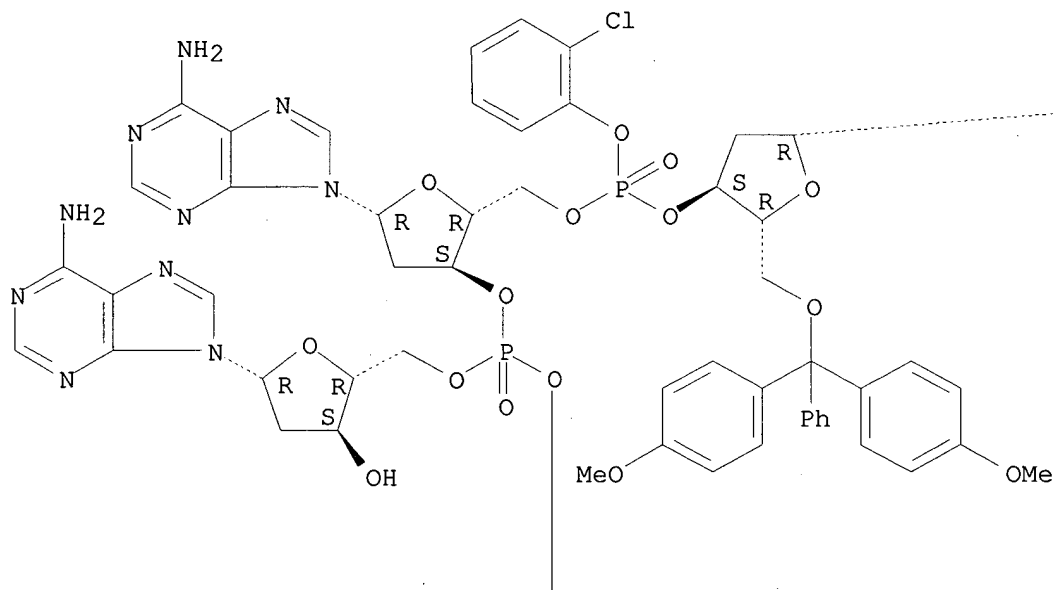


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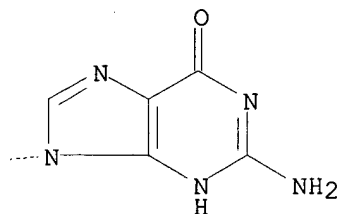
CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')-P-(2-chlorophenyl)-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

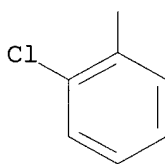
PAGE 1-A



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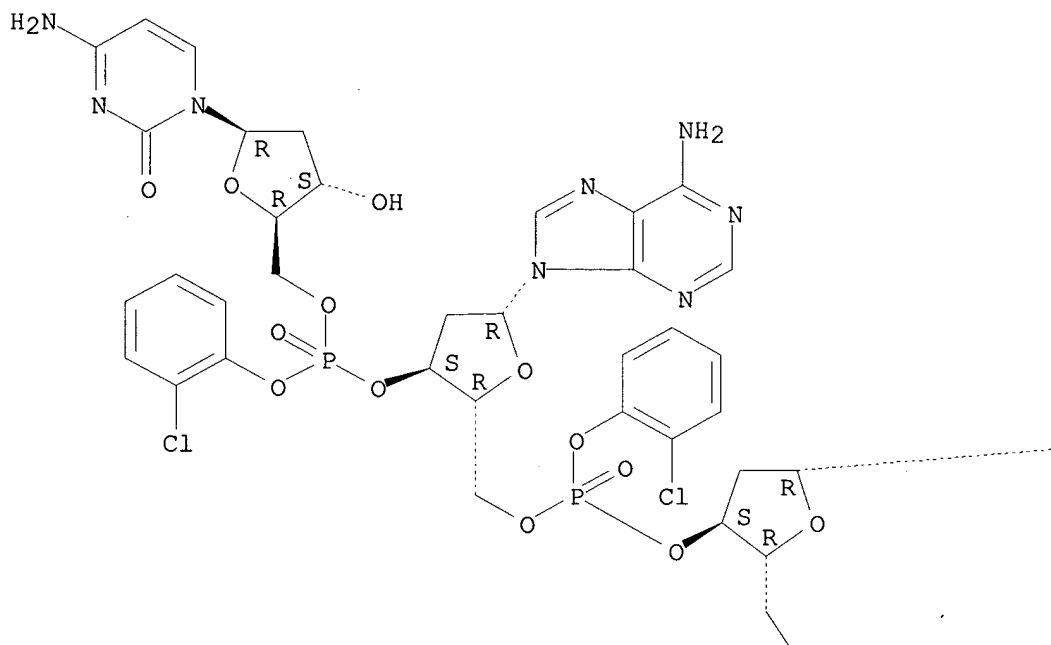
PAGE 2-A



RN 182759-45-1 HCAPLUS  
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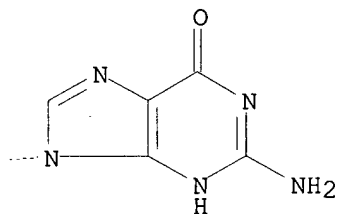
Absolute stereochemistry.

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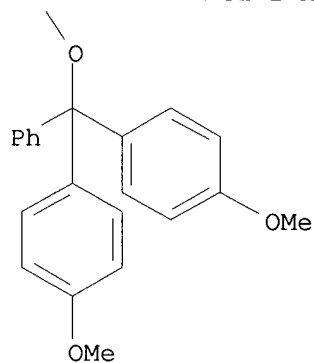




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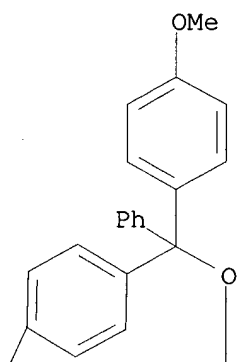
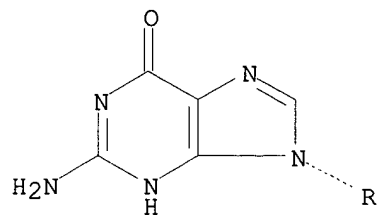
PAGE 2-A



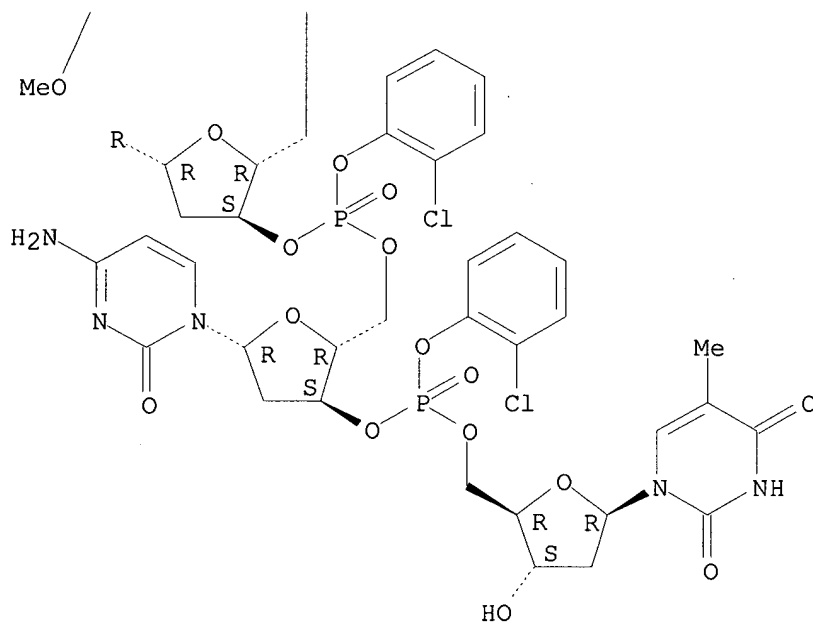
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Absolute stereochemistry.

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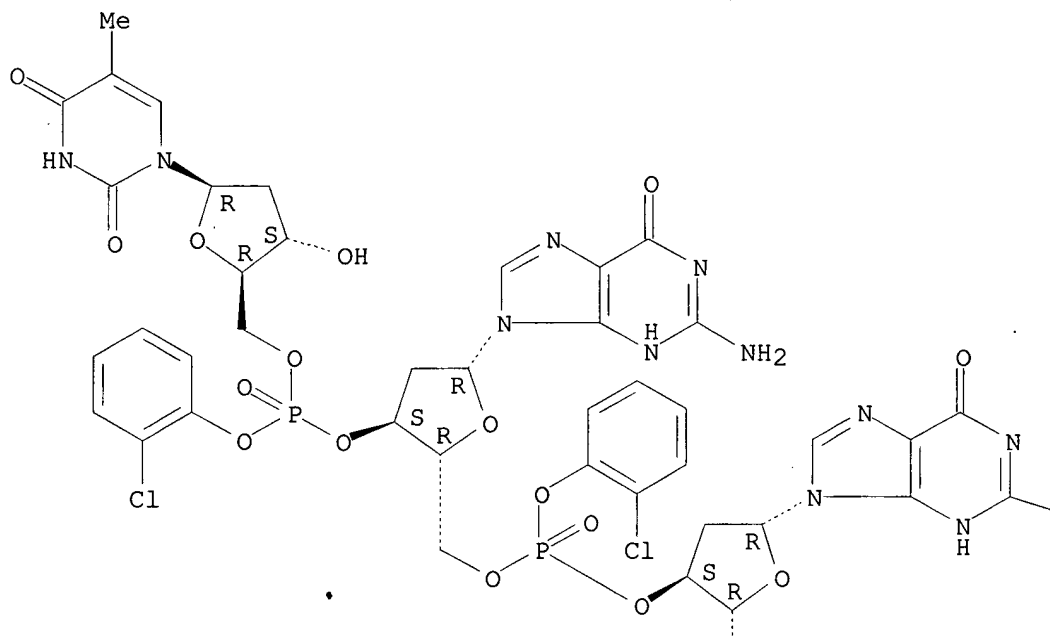
PAGE 2-A



CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')-P-(2-chlorophenyl)-2'-deoxyguanylyl-(3'.fwdarw.5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

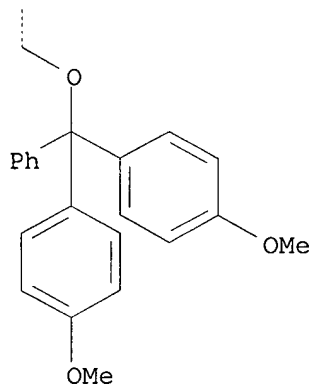
PAGE 1-A



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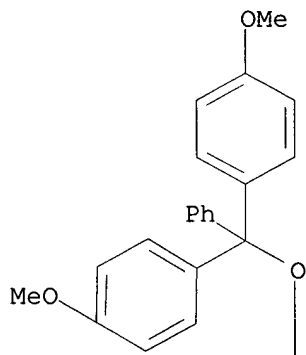
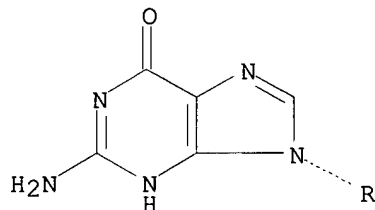
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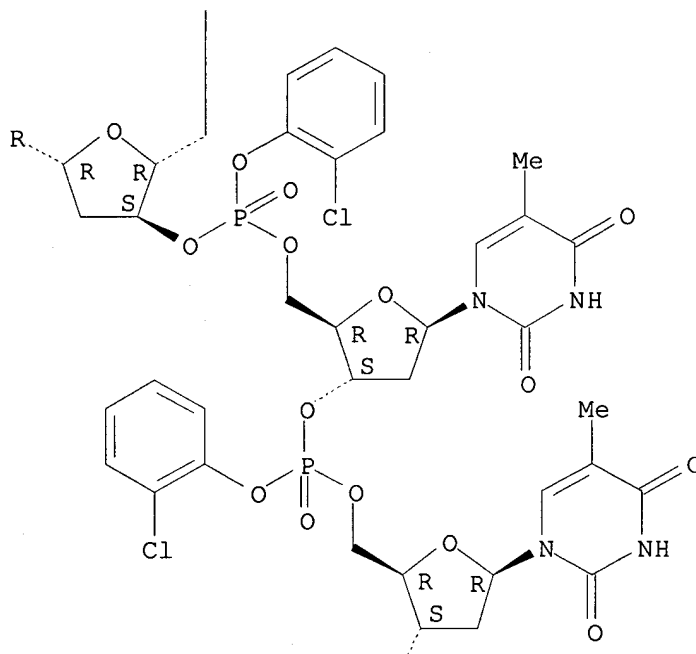
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Absolute stereochemistry.

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HO

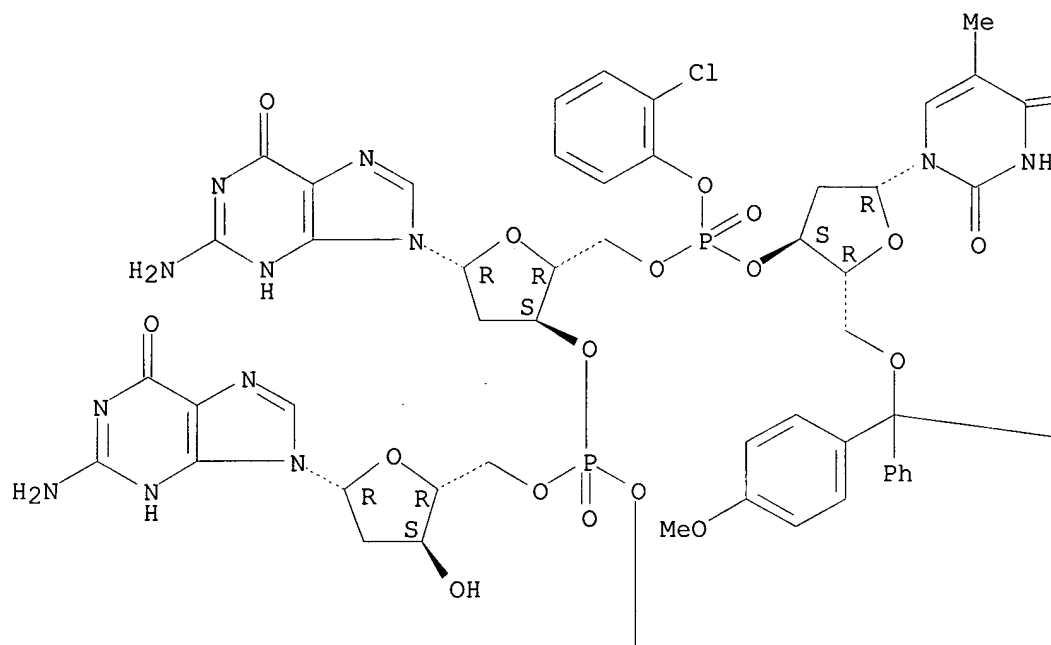
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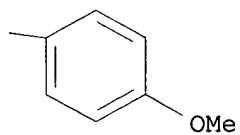
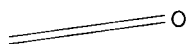
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Absolute stereochemistry.

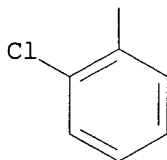
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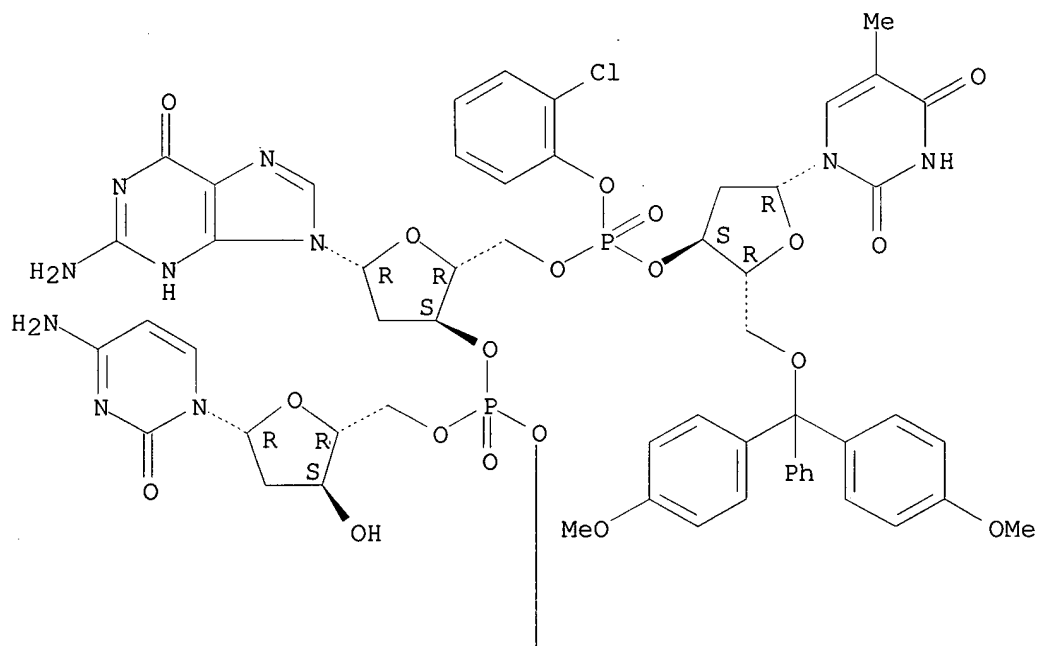
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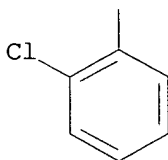
chlorophenyl)thymidyl-(3'.fwdarw.5')-P-(2-chlorophenyl)-2'-deoxyguanylyl-  
(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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08/884873

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=> d bib abs hitstr 144 29

L44 ANSWER 29 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1996:605507 HCAPLUS

DN 125:248493

TI Methods and apparatus for synthesizing labeled combinatorial chemical libraries

PA Ontogen Corporation, USA

SO PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DT Patent

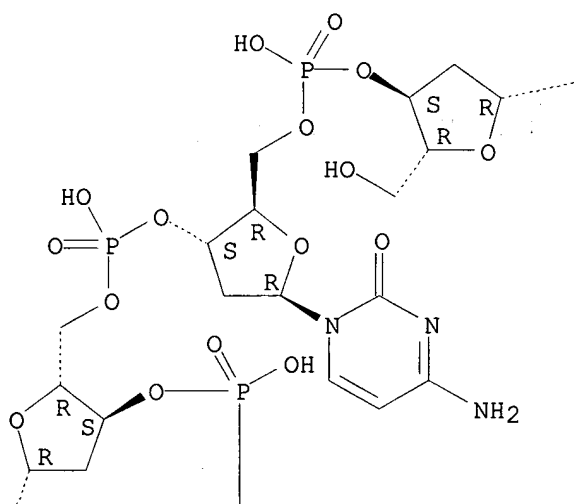
LA English

FAN.CNT 2

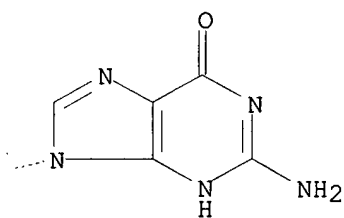
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	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
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	CA 2186943	AA	19960808	CA 1996-2186943	19960130
	AU 9650204	A1	19960821	AU 1996-50204	19960130
	EP 754302	A1	19970122	EP 1996-907016	19960130
	R: CH, DE, DK, FR, GB, IT, LI, NL, SE				
	JP 09512036	T2	19971202	JP 1996-523660	19960130
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	US 1993-92863		19930719		
	US 1994-180863		19940113		
	WO 1996-US1207		19960130		
AB	The present invention provides labeled synthetic libraries of random oligomers and methods and app. for generating labeled synthetic oligomer libraries. Each member of such a library is labeled with a unique tag that specifies the structure or sequence of the oligomer. In a preferred embodiment of the present invention the identifier tag is a microchip that				
	is pre-encoded or encodable with information that is relayed back to a detector when the identifier tag is pulsed with electromagnetic radiation.				
IT	<b>181819-45-4P</b>				
	RL: NUU (Nonbiological use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)				
	(methods and app. for synthesizing labeled <b>combinatorial chem. libraries</b> )				
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Absolute stereochemistry.

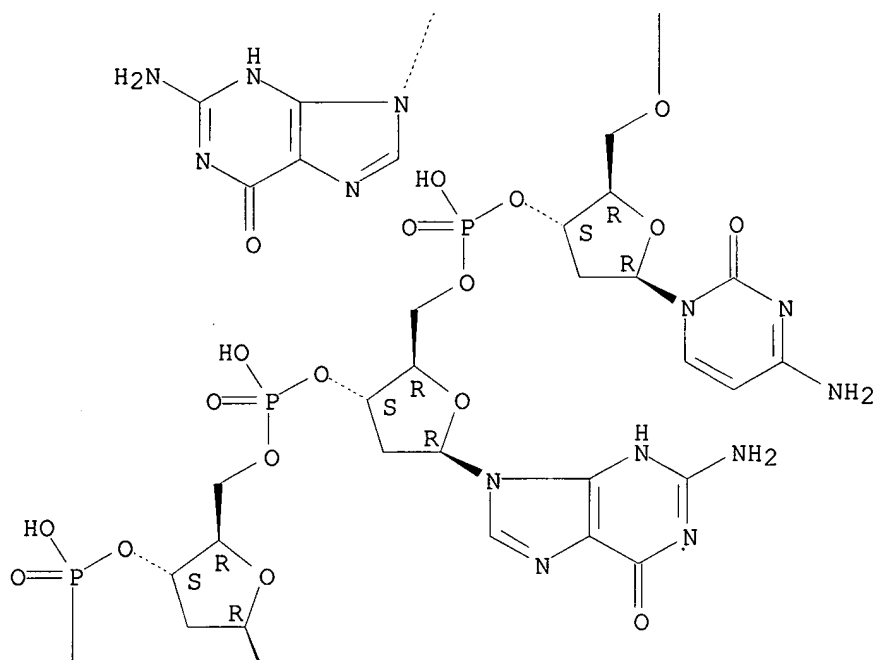
PAGE 1-B



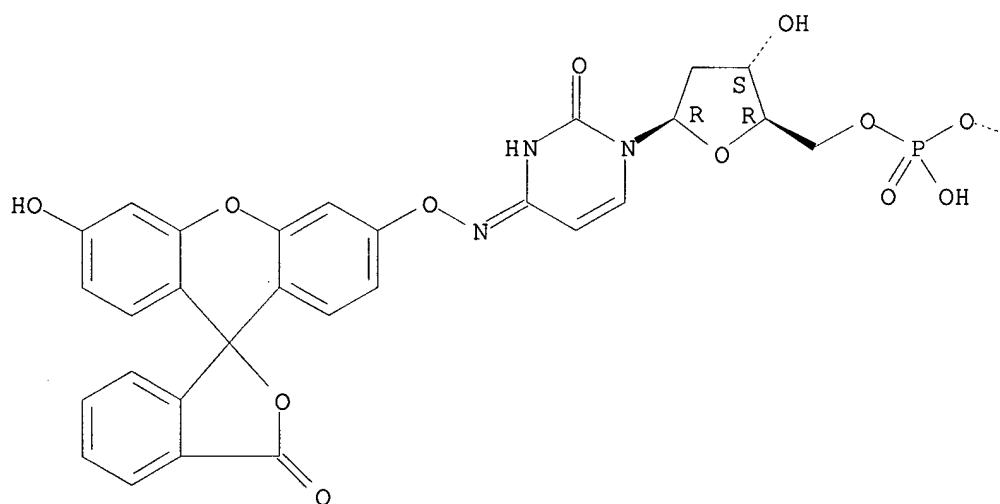
PAGE 1-C



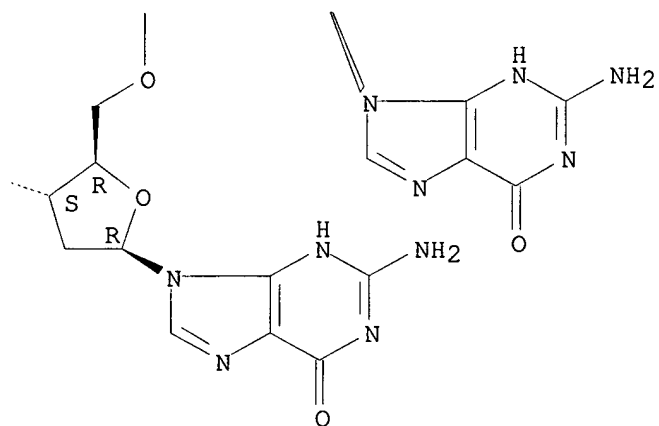
PAGE 2-B



PAGE 3-A



PAGE 3-B



=> d bib abs hitstr 144 30

L44 ANSWER 30 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1996:476809 HCAPLUS

DN 125:143234

TI Codon amidites and method of using them to produce oligonucleotides and mutagenesis libraries

IN Lyttle, Matthew H.; Kauvar, Lawrence M.

PA Terrapin Technologies, Inc., USA

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

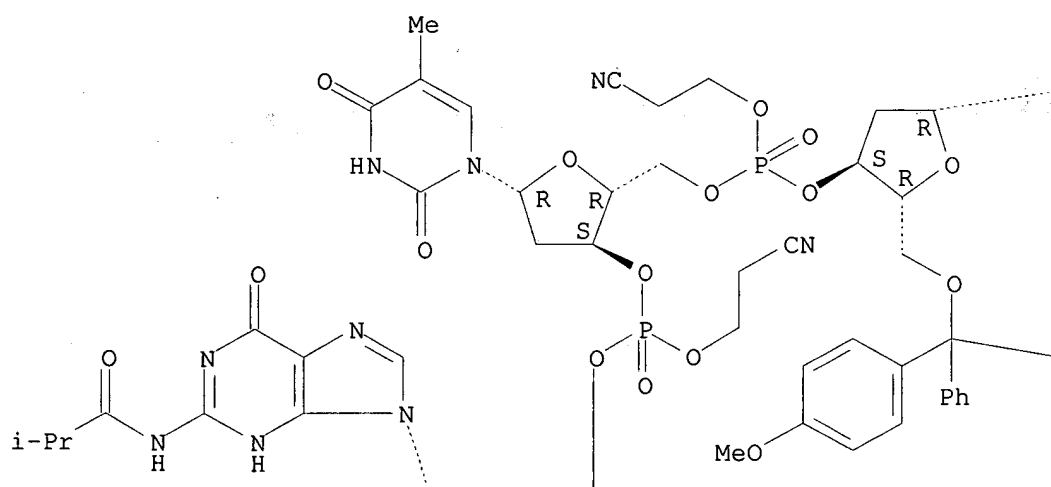
LA English

FAN.CNT 1

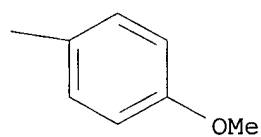
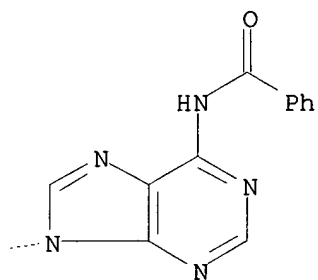
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9616073	A2	19960530	WO 1995-US15319	19951122
	WO 9616073	A3	19960801		
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5717085	A	19980210	US 1994-344820	19941123
	AU 9645029	A1	19960617	AU 1996-45029	19951122
PRAI	US 1994-344820		19941123		
	WO 1995-US15319		19951122		
OS	MARPAT 125:143234				
AB	Merrifield synthesis oligodeoxyribonucleotides using preassembled 3'-phosphoramidite trinucleotides as building blocks to make oligodeoxyribonucleotides encoding a desired sequence of amino acids, optionally contg. positions with random amino acids. Randomized DNA fragments, in particular, are useful in producing combinatorial libraries of peptides and proteins with a variety of binding properties.				
IT	<b>179549-68-9P 179549-69-0P 179549-70-3P 179549-73-6P</b>				
	RL: SPN (Synthetic preparation); PREP (Preparation) (codon amidites and method of using them to produce oligodeoxyribonucleotides and mutagenesis <b>libraries</b> )				
RN	179549-68-9 HCAPLUS				
CN	Guanosine, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-cyanoethyl)-2'-deoxyadenyl-yl-(3'.fwdarw.5')-P-(2-cyanoethyl)thymidyl-yl-(3'.fwdarw.5')-2'-deoxy-N-(2-methyl-1-oxopropyl)-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)				

Absolute stereochemistry.

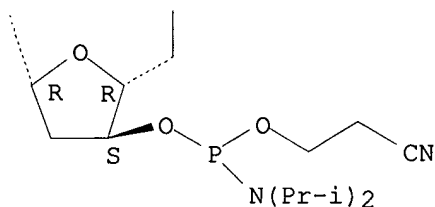
PAGE 1-A



PAGE 1-B



PAGE 2-A



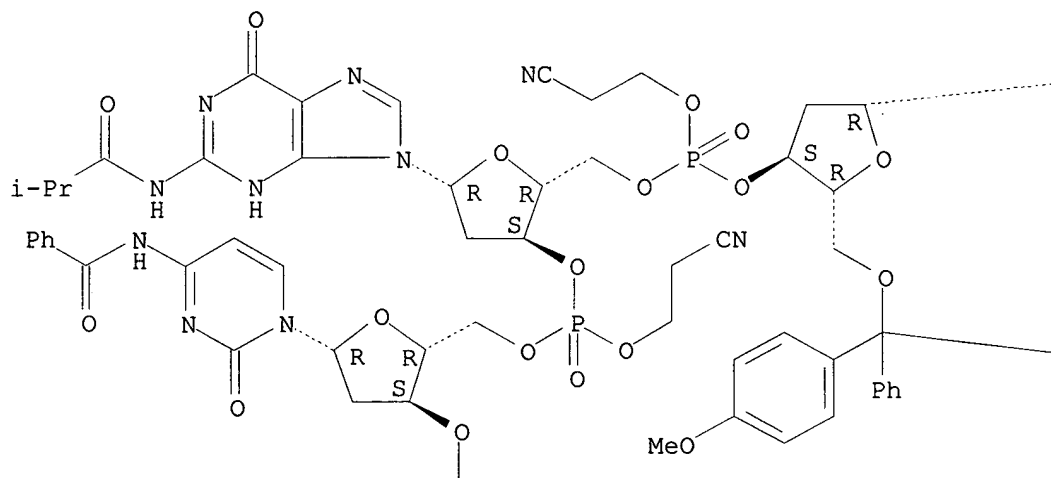
RN 179549-69-0 HCAPLUS

CN Cytidine, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-

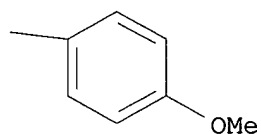
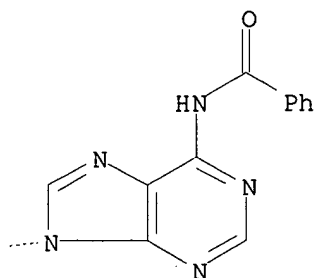
cyanoethyl)-2'-deoxyadenylyl-(3'.fwdarw.5')-P-(2-cyanoethyl)-2'-deoxy-N-(2-methyl-1-oxopropyl)guanylyl-(3'.fwdarw.5')-N-benzoyl-2'-deoxy-,  
 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

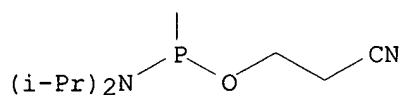
PAGE 1-A



PAGE 1-B



PAGE 2-A



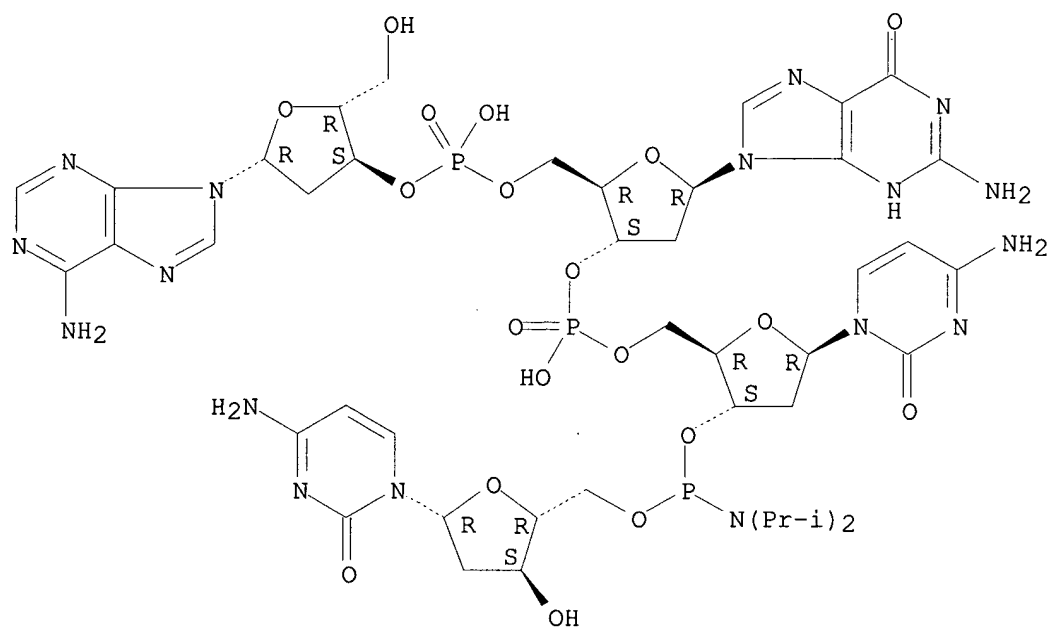
RN 179549-70-3 HCAPLUS

CN Cytidine,

2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-  
P-[bis(1-methylethyl)amino]-P-deoxo-P,2'-dideoxycytidylyl-(3'.fwdarw.5')-  
2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



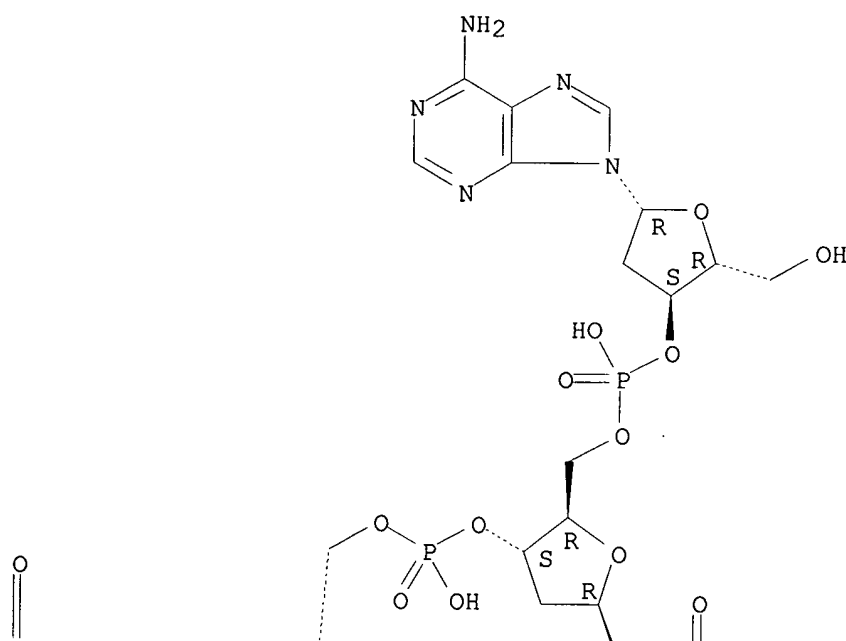


RN 179549-73-6 HCAPLUS

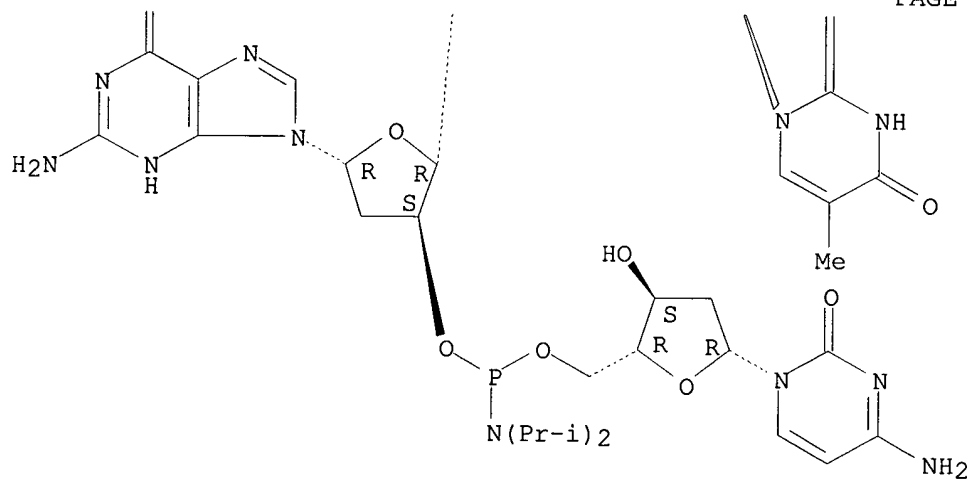
CN Cytidine, 2'-deoxyadenylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-P-[bis(1-methylethyl)amino]-P-deoxo-P,2'-dideoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



=> d bib abs hitstr 144 32

L44 ANSWER 32 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1996:369153 HCAPLUS  
DN 125:34037  
TI Preparation of soluble combinatorial libraries using soluble  
macromolecular supports  
IN Janda, Kim; Han, Hyunsoo  
PA Scripps Research Institute, USA  
SO PCT Int. Appl., 154 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	WO 9603418	A1	19960208	WO 1995-US9614	19950726
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2195321	AA	19960208	CA 1995-2195321	19950726
	AU 9532722	A1	19960222	AU 1995-32722	19950726
	AU 697920	B2	19981022		
	EP 772623	A1	19970514	EP 1995-929334	19950726
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,				
SE	JP 10506379	T2	19980623	JP 1995-505990	19950726
PRAI	US 1994-281200		19940726		
	US 1995-484153		19950607		
	WO 1995-US9614		19950726		
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Novel sol. combinatorial libraries are prepd., comprising a sol. phase in soln. attached to a core mol., and allowing the improved high-yield and efficient prodn. of sol. combinatorial libraries. Some specific examples of the sol. combinatorial libraries claimed herein comprise one or more

of the following: amino acids, .alpha.-azetide amino acids, triazine dione mols., .gamma.-lactamtide mols. (constrained peptide mimics), .delta.-lactamthiotide mols. (constrained peptide mimics), .beta.-lactam nucleus contg. mols., lycoramine alkaloid nucleus contg. mols., .beta.-blocker nucleus mols., oligopeptides, oligosaccharides, oligonucleotides, and arylsulfonamides. The macromol. supports are selected from polyethylene glycol, polyvinyl alc., polyvinylamine copolyimd. with polyvinylpyrrolidine, and derivs. thereof. Further, a split synthesis technique for generating libraries of combinatorial mols.

Searched by John Dantzman 308-4488

employs a biphasic macromol. support which is sol. during the pooling, splitting, and coupling steps but which is insol. during the washing step.

The use of a biphasic macromol. support in its insol. phase significantly enhances the efficiency and performance of the washing step. Thus, a library of 8 tetrasaccharides (e.g. I, II, and III), useful as antigenic markers which distinguishes fetal erythrocytes from adult cells (no data),

were prepd. by the split synthesis technique involving sequential coupling

of a library of polyethylene glycol monomethyl ether-bound glucose and galactose derivs. (IV and V; R = MeO-PEG-O<sub>2</sub>CCH<sub>2</sub>CH<sub>2</sub>CO, wherein PEG = polyethylene glycol) (prepn. given) with (A) galactosamine and glucosamine

derivs. (VI and VII) (prepn. given), (B) glucose and galactose derivs. IV and V (R = H) (prepn. given), and (C) galactosamine deriv. VI.

IT 177797-66-9

RL: RCT (Reactant)

(prepn. of sol. **combinatorial libraries** using sol. macromol. supports)

RN 177797-66-9 HCAPLUS

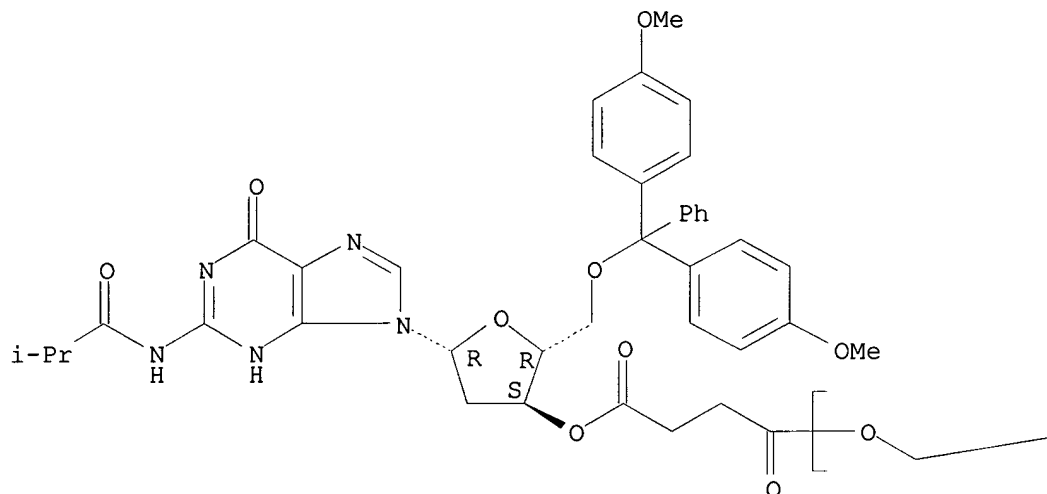
CN Poly(oxy-1,2-ethanediyl),

.alpha.-(3-carboxy-1-oxopropyl)-.omega.-hydroxy-

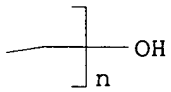
, 3'-ester with 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-N-(2-methyl-1-oxopropyl)guanosine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

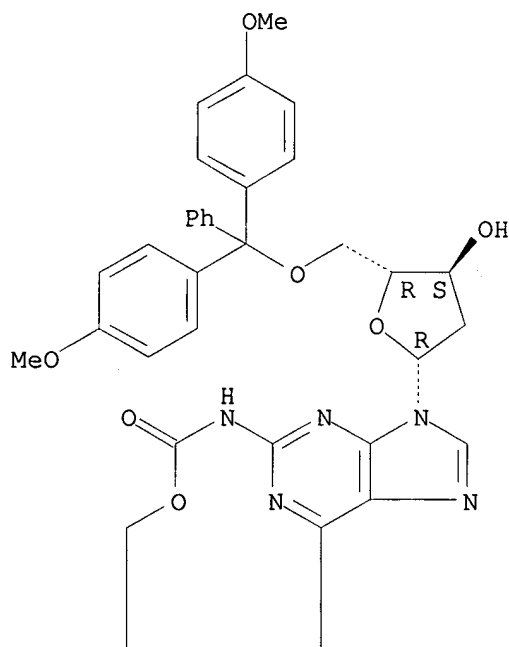


=> d bib abs hitstr 144 33

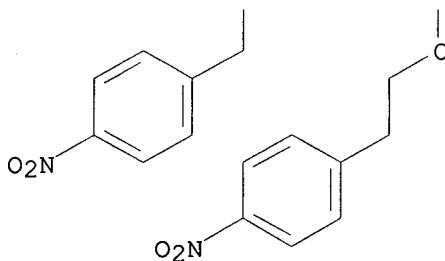
L44 ANSWER 33 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1996:309975 HCAPLUS  
DN 125:58965  
TI A combinatorial protecting group strategy for oligonucleotide synthesis  
AU Dumontet, Vincent; Thoison, Odile; Omobuwajo, Olamrewaju R.; Martin, Marie-Therese; Perromat, Guillaume; Chiaroni, Angele; Riche, Claude; Pais, Mary; Sevenet, Thierry; Hadi, A. Hamid A.  
CS Inst Chim. Substances Naturelles, C.N.R.S., Gif-sur-Yvette, D-20146, Fr.  
SO Tetrahedron (1996), 52(20), 6913-6930  
CODEN: TETRAB; ISSN: 0040-4020  
DT Journal  
LA English  
AB A novel 5'-3' directed DNA synthesis will be described. Together with addnl. investigations on model compds. a synthetic strategy is established which allows multi-selective deprotections. This offers the potential to either generate oligonucleotides in different sequence specific protection/functionalization states or to create a combinatorial set of mols. available for specific mol. interaction or recognition expts.  
IT **131920-31-5**  
RL: RCT (Reactant)  
(combinatorial protecting group strategy for the prepn. of antitumor oligodeoxyribonucleotides)  
RN 131920-31-5 HCAPLUS  
CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-N-[[2-(4-nitrophenyl)ethoxy]carbonyl]-6-O-[2-(4-nitrophenyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



IT 178313-82-1P 178313-86-5P 178313-93-4P

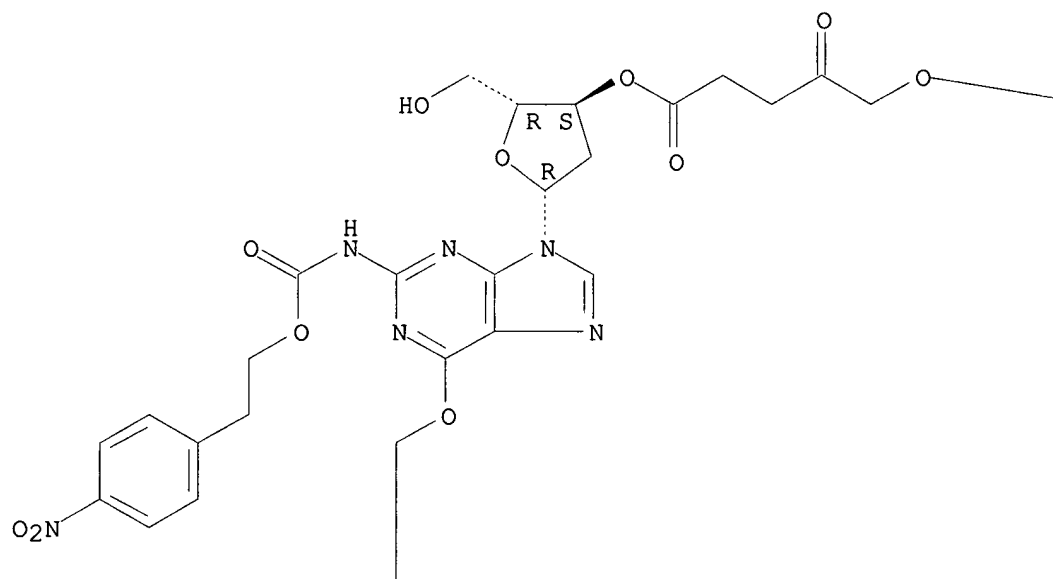
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (combinatorial protecting group strategy for the prepn. of  
 antitumor oligodeoxyribonucleotides)

RN 178313-82-1 HCAPLUS

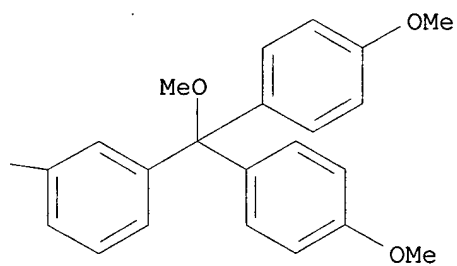
CN Guanosine, 2'-deoxy-N-[[2-(4-nitrophenyl)ethoxy]carbonyl]-6-O-[2-(4-  
 nitrophenyl)ethyl]-,  
 3'-[5-[3-[methoxybis(4-methoxyphenyl)methyl]phenoxy]-  
 4-oxopentanoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

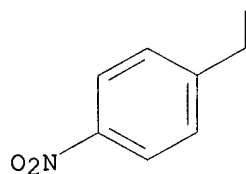
PAGE 1-A



PAGE 1-B



PAGE 2-A



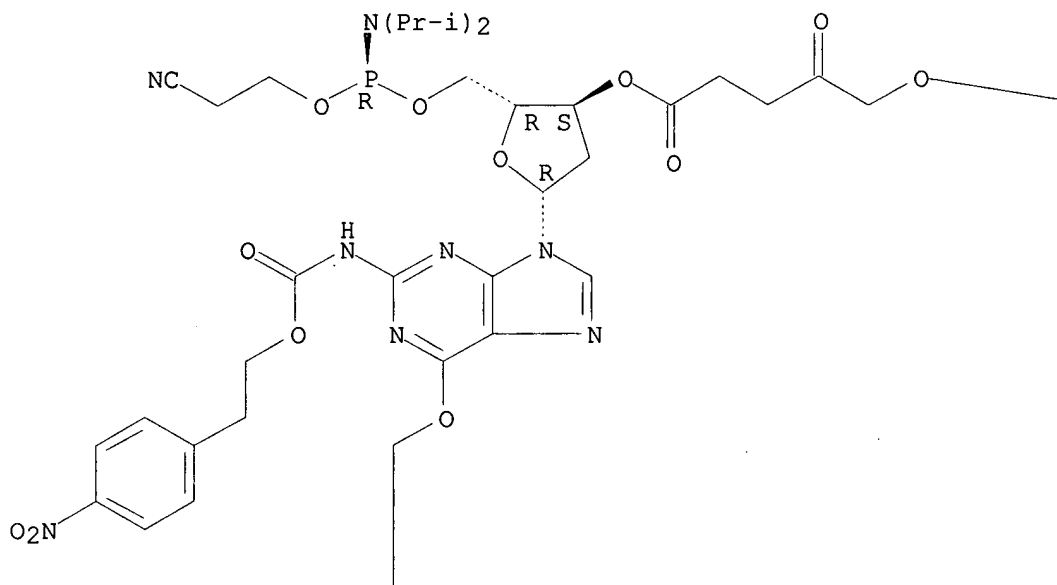
RN 178313-86-5 HCAPLUS  
 CN Guanosine, 2'-deoxy-N-[[2-(4-nitrophenyl)ethoxy]carbonyl]-,  
 5'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite]  
 3'-[5-[3-[methoxybis(1-methylethyl)phosphoramidite]ethyl]ethoxy]ethyl  
 Searched by John Dantzman 308-4488



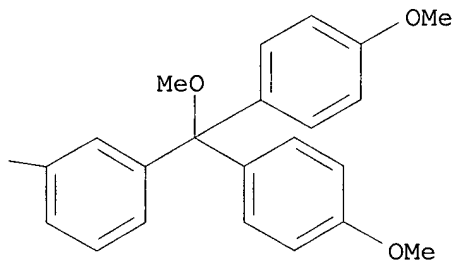
methoxyphenyl)methyl]phenoxy]-4-oxopentanoate] 6-[2-(4-nitrophenyl)ethyl carbonate], (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

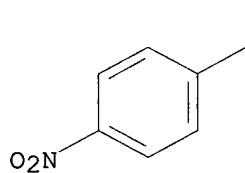
PAGE 1-A



PAGE 1-B



PAGE 2-A

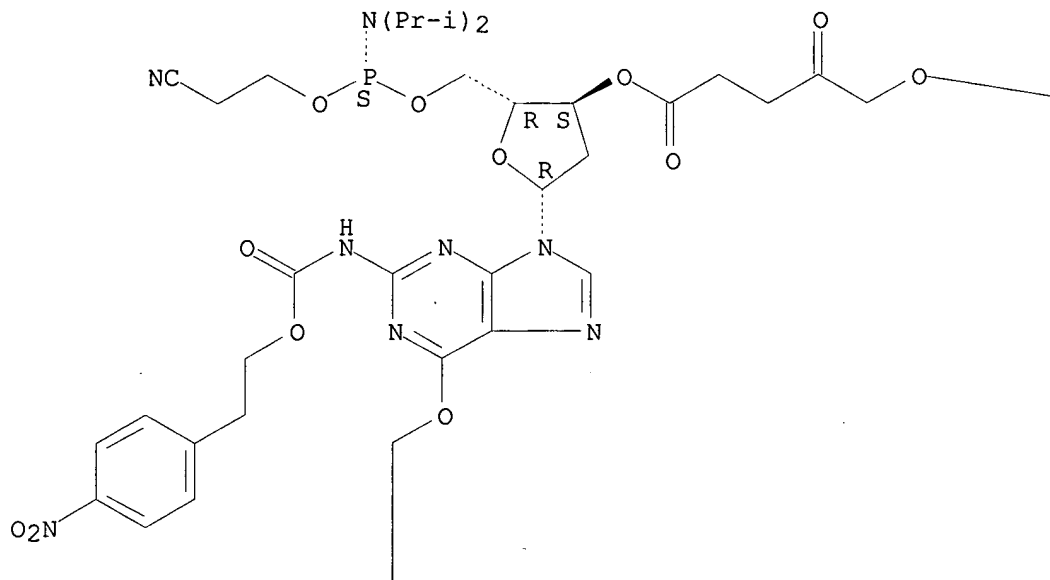


RN 178313-93-4 HCAPLUS

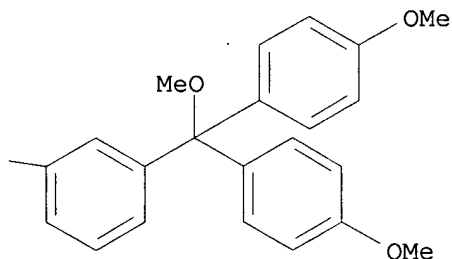
CN Guanosine, 2'-deoxy-N-[[2-(4-nitrophenyl)ethoxy]carbonyl]-,  
5'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite]3'-[5-[3-[methoxybis(4-methoxyphenyl)methyl]phenoxy]-4-oxopentanoate] 6-[2-(4-nitrophenyl)ethyl  
carbonate], (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

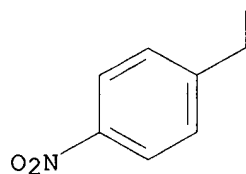
PAGE 1-A



PAGE 1-B



PAGE 2-A



IT 178313-78-5P

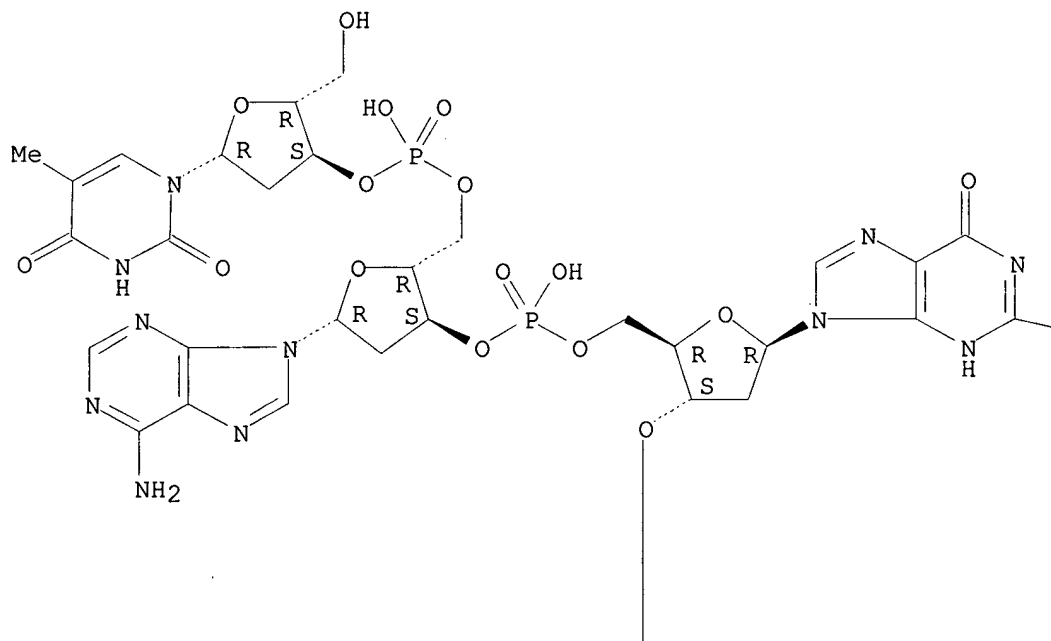
RL: SPN (Synthetic preparation); PREP (Preparation)  
 (combinatorial protecting group strategy for the prepn. of  
 antitumor oligodeoxyribonucleotides)

RN 178313-78-5 HCAPLUS

CN Thymidine, thymidyl-(3'.fwdarw.5')-2'-deoxyadenyl-(3'.fwdarw.5')-2'-  
 deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidyl-(3'.fwdarw.5')- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.

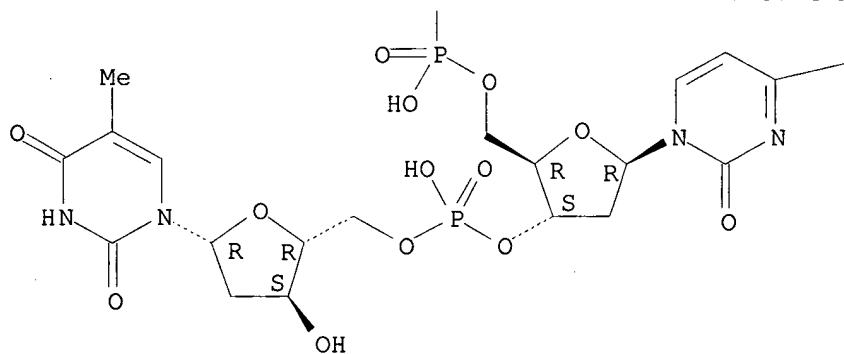
PAGE 1-A



PAGE 1-B

—NH<sub>2</sub>

PAGE 2-A



PAGE 2-B

—NH<sub>2</sub>

=> d bib abs hitstr 144 34

L44 ANSWER 34 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1996:204140 HCAPLUS

DN 124:280324

TI Sequence specificity of triplex DNA formation: analysis by a combinatorial

approach, restriction endonuclease protection selection and amplification

AU Hardenbol, Paul; Van Dyke, Michael W.

CS Department Tumor Biology, University Texas M. D. Anderson Cancer Center, Houston, TX, 77030, USA

SO Proc. Natl. Acad. Sci. U. S. A. (1996), 93(7), 2811-16

CODEN: PNASA6; ISSN: 0027-8424

DT Journal

LA English

AB We have devised a combinatorial method, restriction endonuclease protection selection and amplification (REPSA), to identify consensus ligand binding sequences in DNA. In this technique, cleavage by a type IIS restriction endonuclease (an enzyme that cleaves DNA at a site distal from its recognition sequence) is prevented by a bound ligand while unbound DNA is cleaved. Since the selection step of REPSA is performed

in

soln. under mild conditions, this approach is amenable to the investigation of ligand-DNA complexes that are either insufficiently stable or not readily separable by other methods. Here we report the use of REPSA to identify the consensus duplex DNA sequence recognized by a G/T-rich oligodeoxyribonucleotide under conditions favoring purine-motif triple-helix formation. Anal. of 47 sequences indicated that recognition between 13 bases on the oligonucleotide 3' end and the duplex DNA was sufficient for triplex formation and indicated the possible existence of

a

new base triplet, G.cntdot.AT. This information should help identify appropriate target sequences for purine-motif triplex formation and demonstrates the power of REPSA for investigating ligand-DNA

interactions.

IT 175446-97-6

RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(triplexes contg.; anal. by **combinatorial** method REPSA of sequence specificity of triplex DNA formation)

RN 175446-97-6 HCAPLUS

CN Guanosine, 2'-deoxy-, compd. with 2'-deoxyadenylyl-(3'.fwdarw.5')-thymidine (1:1) (9CI) (CA INDEX NAME)

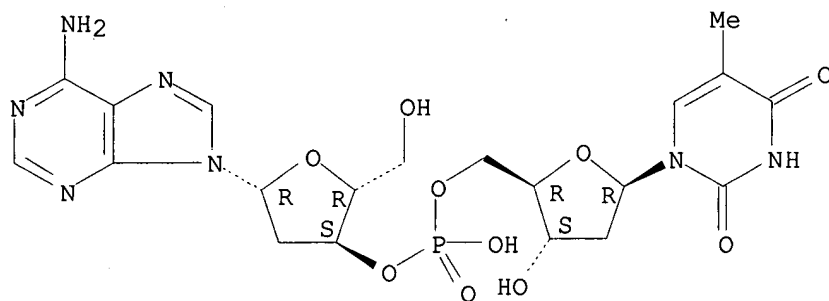
CM 1

CRN 23339-47-1

CMF C20 H26 N7 O10 P

CDES 5:B-D-ERYTHRO,B-D-ERYTHRO

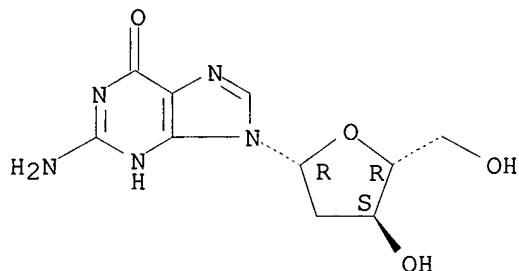
Absolute stereochemistry.



CM 2

CRN 961-07-9  
CMF C10 H13 N5 O4  
CDES 5:B-D-ERYTHRO

Absolute stereochemistry.



Duplicate

RICIGLINO

08/884873

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=> d bib abs hitstr 144 35

L44 ANSWER 35 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1995:994345 HCAPLUS  
DN 124:146851  
TI Preparation of oligomeric peptide nucleic acid (PNA) combinatorial  
libraries and improved methods of synthesis  
IN Cook, Philip Dan; Kiely, John; Sprankle, Kelly  
PA Isis Pharmaceuticals, Inc., USA  
SO PCT Int. Appl., 103 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9523163	A1	19950831	WO 1995-US2182	19950222
	W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN			
	RW:	KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	US 5539083	A	19960723	US 1994-200742	19940223
	CA 2183371	AA	19950831	CA 1995-2183371	19950222
	AU 9519261	A1	19950911	AU 1995-19261	19950222
	AU 684152	B2	19971204		
	JP 09503523	T2	19970408	JP 1995-522421	19950222
	EP 777678	A1	19970611	EP 1995-911848	19950222
	EP 777678	B1	19991013		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,			

SE JP 11209393 A2 19990803 JP 1998-322576 19950222  
AT 185572 E 19991015 AT 1995-911848 19950222  
US 5864010 A 19990126 US 1996-587648 19960117  
US 5831014 A 19981103 US 1996-693144 19960813

PRAI US 1994-200742 19940223  
JP 1995-522421 19950222  
WO 1995-US2182 19950222

AB New sub-monomer synthetic methods for the prepn. of peptide nucleic acid oligomeric structures, useful as inhibitors of enzymes such as phospholipase A2 and for the treatment of inflammatory diseases including atopic dermatitis and inflammatory bowel disease (no data), are

disclosed,  
that provide for the synthesis of both predefined sequence peptide nucleic acid oligomers as well as random sequence peptide nucleic acid oligomers. Further these methods also provide for the incorporation of peptide nucleic acid units or strings of such units with amino acids or strings

of amino acids in chimeric peptide nucleic acid-amino acid compds. Further disclosed are methods of making random libraries of peptide nucleic acids using the fully preformed monomers. Thus, a combinatorial library of chimeric peptide nucleic acid oligomers was prepd. using

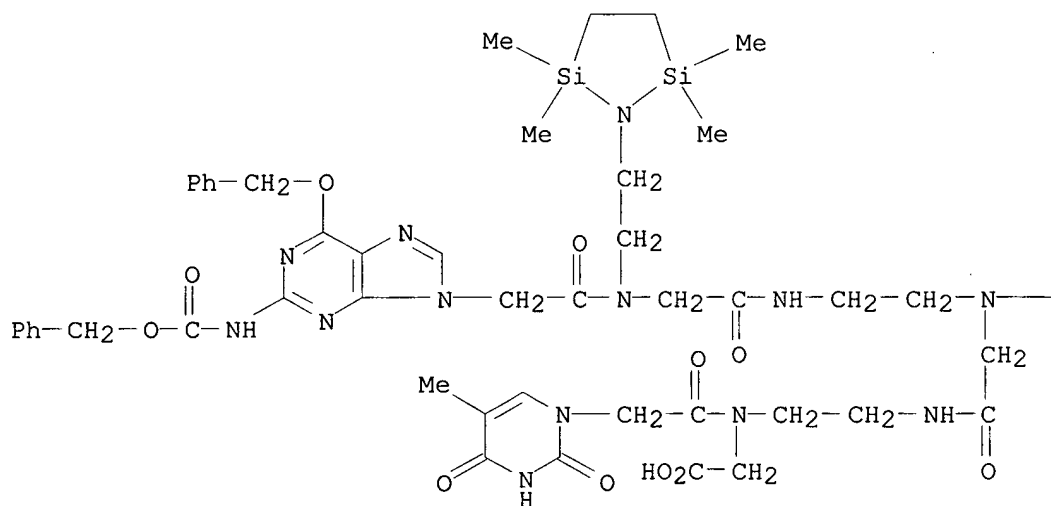
Searched by John Dantzman 308-4488

1-[(N2-benzyloxycarbonyl-N6-benzyloxy-2-aminopurin-9-yl)acetyl]-2-oxomorpholine (I), 1-[(N6-benzyloxycarbonyladenin-9-yl)acetyl]-2-oxomorpholine (II), 1-[(N4-benzyloxycarbonylcytosin-1-yl)acetyl]-2-oxomorpholine (III), and 1-(thymine-1-ylacetyl)-2-oxomorpholine (IV), which involved coupling of IV to a MBHA resin, Mitsunobu reaction of the resulting N-(thymine-1-ylacetyl)-N-(2-hydroxyethyl)glycine-MBHA resin with (Boc)2NH using Ph3P and di-Et azodicarboxylate, random coupling of the resulting N-(thymine-1-ylacetyl)-N-(2-aminoethyl)glycine-MBHA resin with a mixt. of I, II, III, and IV followed by Mitsunobu reaction for converting the terminal hydroxy group to the terminal amine moieties, repeating the latter procedure for extension of backbone and addn. of further nucleoside bases to complete the oligomer of the desired length, addn. of a peptide to the peptide nucleic acid unit using std. solid phase Merrifield peptide synthesis, and cleavage of peptide nucleic acid oligomers from the resin.

IT **172729-50-9P 172729-69-0P 172729-73-6P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of oligomeric peptide nucleic acid (PNA) **combinatorial libraries** and improved methods of synthesis)

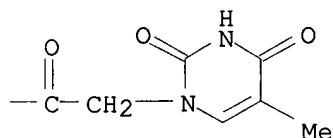
RN 172729-50-9 HCAPLUS  
 CN 3,6,9,12,15-Pentaazaheptadecanoic acid,  
 3,9-bis[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-7,13,16-trioxo-17-[6-(phenylmethoxy)-2-[[ (phenylmethoxy)carbonyl]amino]-9H-purin-9-yl]-15-[2-(2,2,5,5-tetramethyl-1-aza-2,5-disilacyclopent-1-yl)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



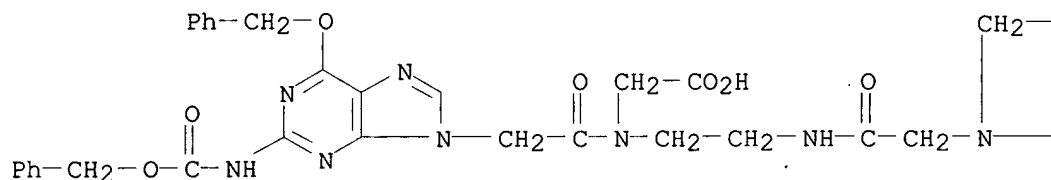


PAGE 1-B

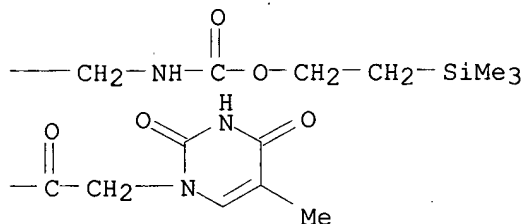


RN	172729-69-0	HCAPLUS
CN	2,5,8,11-Tetraazatridecanedioic acid, 5-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-7-oxo-11-[[6-(phenylmethoxy)-2-[[[(phenylmethoxy)carbonyl]amino]-9H-purin-9-yl]acetyl]-, 1-[2-(trimethylsilyl)ethyl] ester (9CI) (CA INDEX NAME)	

PAGE 1-A



PAGE 1-B

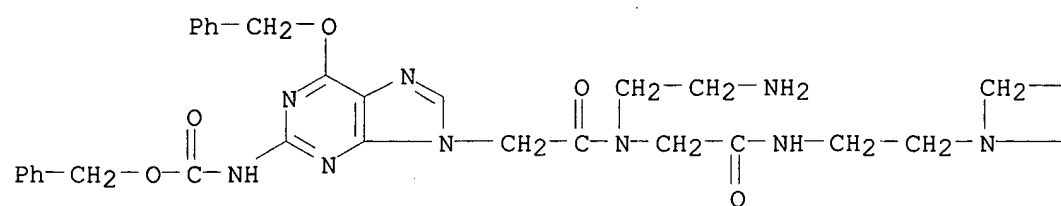


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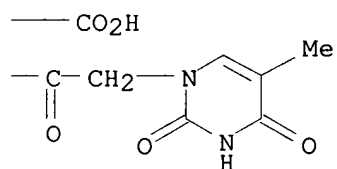
RN      172729-73-6   HCAPLUS
CN      Glycine, N-[2-[[[(2-aminoethyl)[[6-(phenylmethoxy)-2-
[[ (phenylmethoxy)carbonyl]amino]-9H-purin-9-yl]acetyl]amino]acetyl]amino]e
thyl]-N-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]- (9CI)
(CA INDEX NAME)

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PAGE 1-A



PAGE 1-B



=> d bib abs hitstr 144 36

L44 ANSWER 36 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1995:969426 HCAPLUS

DN 124:9344

TI Random oligonucleotide libraries and methods of making the same

IN Cook, Phillip Dan; Ecker, David J.; Acevedo, Oscar L.; Davis, Peter W.

PA Isis Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9518868	A1	19950713	WO 1995-US266	19950109
	W: CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5587471	A	19961224	US 1994-179972	19940111
	US 6001993	A	19991214	US 1996-768102	19961216
PRAI	US 1994-179972		19940111		

AB The invention provides methods of analyzing and evaluating phosphorus-bearing monomeric units [particularly nucleotides and analogs] as to their suitability for use in prepg. random oligomer libraries. The invention also provides methods for prepg. such random oligomer libraries from the selected monomers. For example, four DNA amidites were prepd., namely amidites of 2'-O-methylguanosine (mG), 2'-O-methyladenosine (mA), 2'-O-butylimidazolyladenosine (biA), and 2'-O-nonylcytidine (nC). These were coupled to the supported monomer dT-CPG (CPG = controlled-pore glass)

to assess coupling efficiency. Based on the resulting unequal incorporations, new amts. for addn. of each monomer were derived, which then gave nearly equal incorporations of the monomers. These and other monomers were used to prep. several oligonucleotide libraries with both random ("N") and variable, unique fixed ("X") positions. The oligomer libraries were evaluated in sequential rounds for activity as inhibitors of PLA2, LTB4, or HIV. In the PLA2 inhibition example, the oligonucleotide XNNN(dT) [N = equimolar mixt. of 12 nucleotides and analogs, including mA, nC, dG, dT, egCB, and egIM] was most active (IC50 of 30 .mu.M) for X = nC. In turn, the oligomer (nC)XNN(dT) was most active (20 .mu.M) for X = nC, and (nC)(nC)XN(dT) was most active (10 .mu.M) for X = dG, with the ultimate unique oligomer with greatest activity (2 .mu.M) being (nC)(nC)(dG)(dT)(dT).

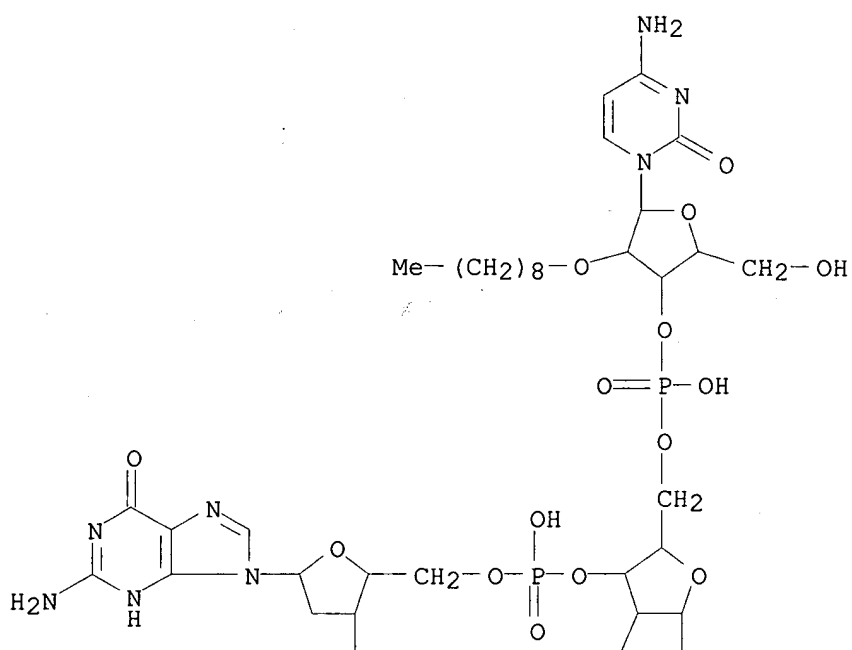
IT 170471-33-7P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(high-activity oligomer; prepn. and evaluation of random oligonucleotide **libraries**)

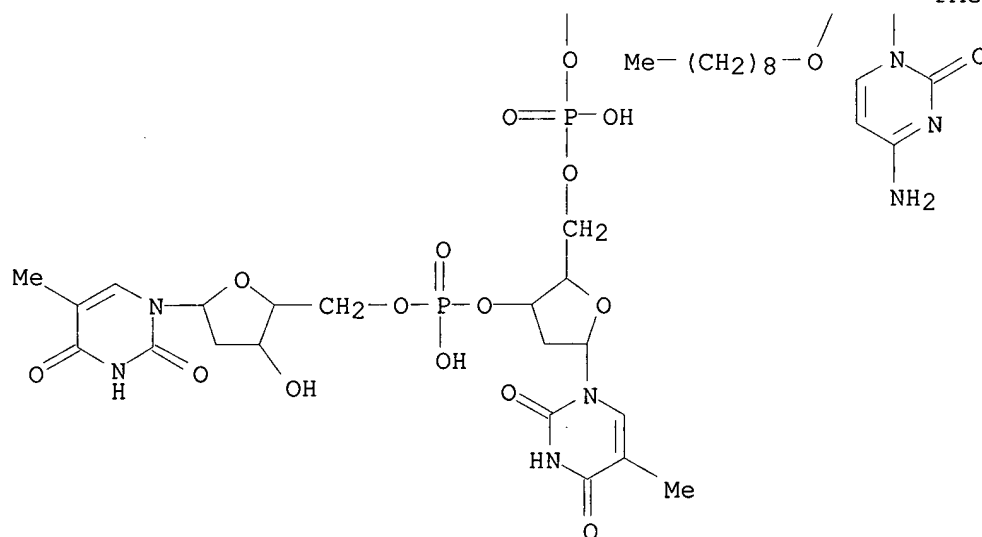
RN 170471-33-7 HCAPLUS

CN Thymidine, 2'-O-nonylcytidyl-(3'.fwdarw.5')-2'-O-nonylcytidyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-(9CI) (CA INDEX NAME)

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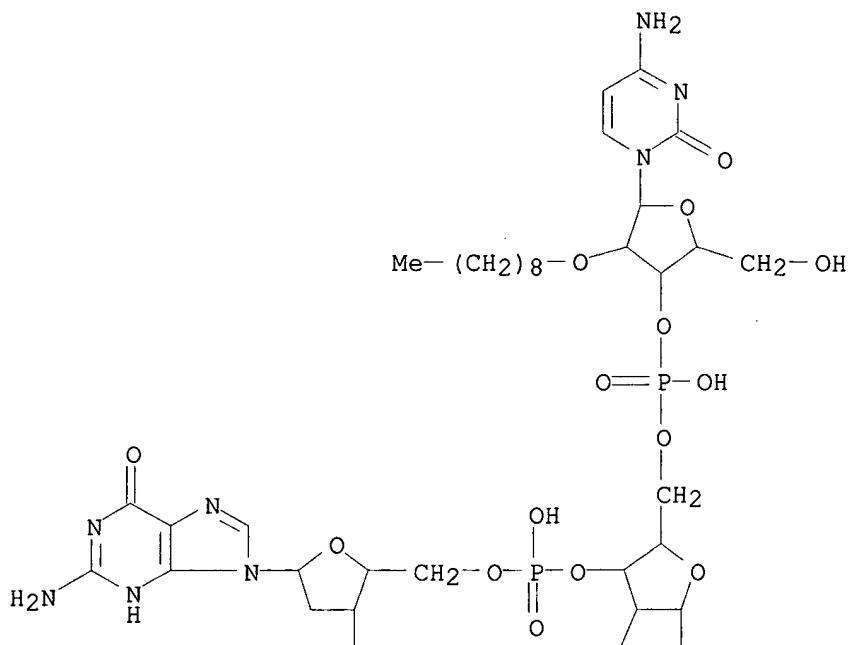
PAGE 2-A



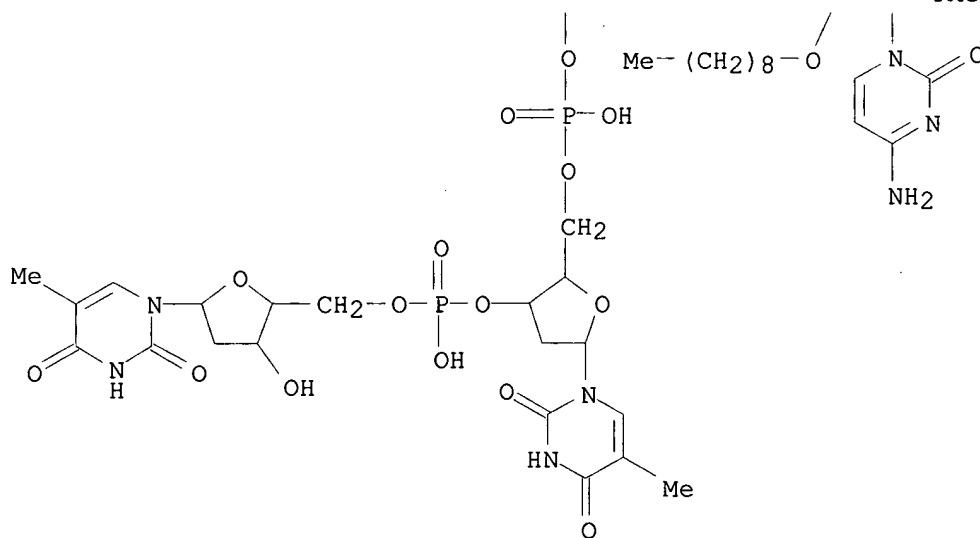
=> d bib abs hitstr 144 37

L44 ANSWER 37 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1995:849947 HCAPLUS  
DN 123:329937  
TI Drug Leads from Combinatorial Phosphodiester Libraries  
AU Davis, Peter W.; Vickers, Timothy A.; Wilson-Lingardo, Laura; Wyatt, Jacqueline R.; Guinasso, Charles J.; Sanghvi, Yogesh S.; DeBaets, Elizabeth A.; Acevedo, Oscar L.; Cook, P. Dan; Ecker, David J.  
CS Isis Pharmaceuticals Inc., Karlovy Vary, CA, 92008, USA  
SO J. Med. Chem. (1995), 38(22), 4363-6  
CODEN: JMCMAR; ISSN: 0022-2623  
DT Journal  
LA English  
AB Deconvolution of a combinatorial library of pentamers composed of native and modified nucleosides plus imidazole, carbazole and amine building blocks has yielded two novel phosphodiester inhibitors of phospholipase A2 and leukotriene B4. Although these structures do not contain features in common with known inhibitors, their activities are similar to substances identified from natural product screening. This represents a further validation of the combinatorial approach for the rapid discovery of lead drug candidates.  
IT 170471-33-7 170471-35-9 170471-36-0  
170471-37-1 170471-39-3 170471-42-8  
170471-43-9  
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)  
(drug leads from **combinatorial** phosphodiester **libraries** using modified nucleoside and imidazole and carbazole and amine building blocks in relation to phospholipase A2 and leukotriene B4 inhibition)  
RN 170471-33-7 HCAPLUS  
CN Thymidine, 2'-O-nonylcytidyl-(3'.fwdarw.5')-2'-O-nonylcytidyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-thymidyl-(3'.fwdarw.5')-(9CI) (CA INDEX NAME)

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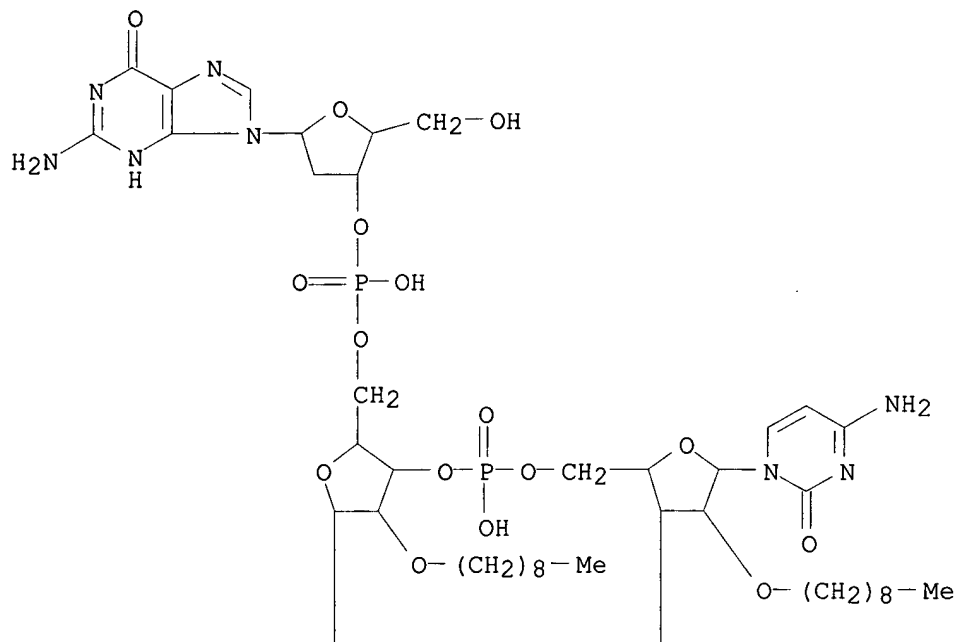
RN 170471-35-9 HCAPLUS

CN Thymidine, 2'-deoxyguanylyl-(3'.fwdarw.5')-2'-O-nonylcytidyl-  
 (3'.fwdarw.5')-2'-O-nonylcytidyl-(3'.fwdarw.5')-thymidyl-  
 (3'.fwdarw.5')- (9CI) (CA INDEX NAME)

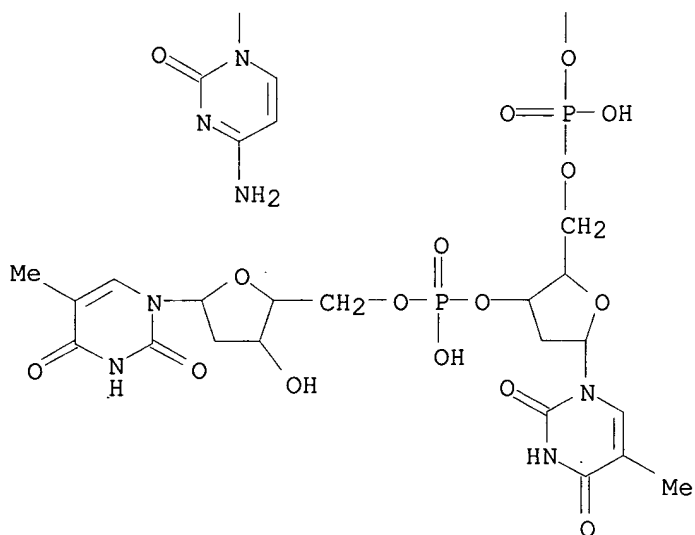
Searched by John Dantzman

308-4488

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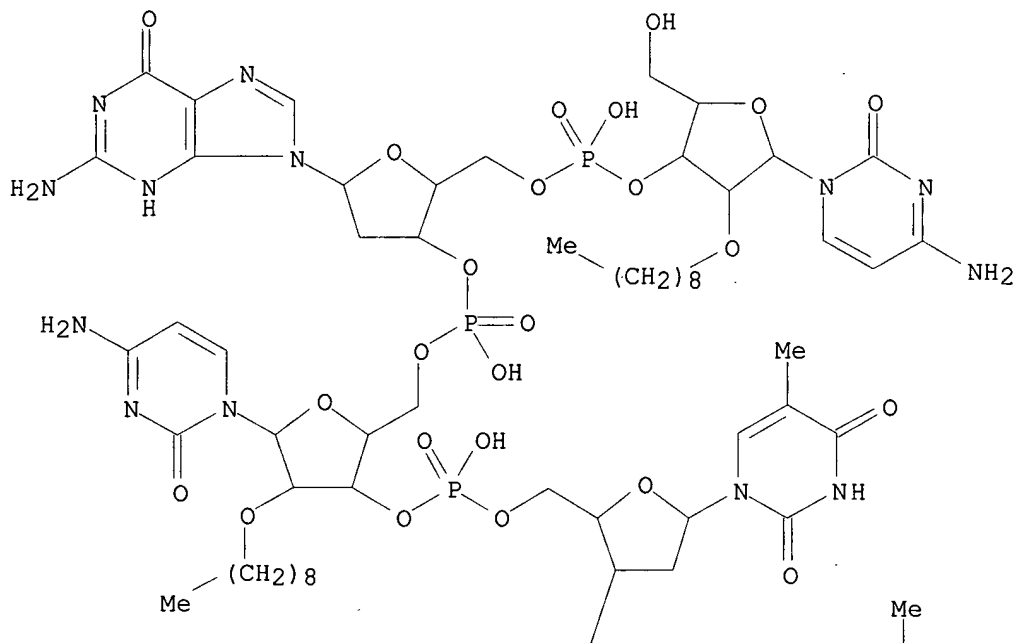
PAGE 2-A



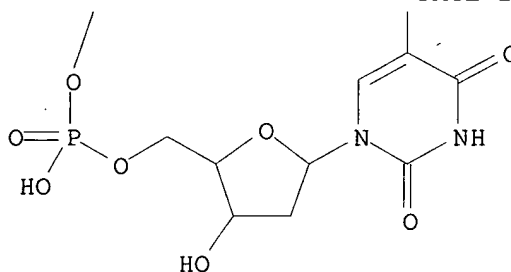
RN 170471-36-0 HCAPLUS  
 CN Thymidine, 2'-O-nonylcytidyl-(3'.fwdarw.5')-2'-deoxyguanylyl-  
 (3'.fwdarw.5')-2'-O-nonylcytidyl-(3'.fwdarw.5')-thymidyl-  
 Searched by John Dantzman 308-4488

(3'.fwdarw.5')- (9CI) (CA INDEX NAME)

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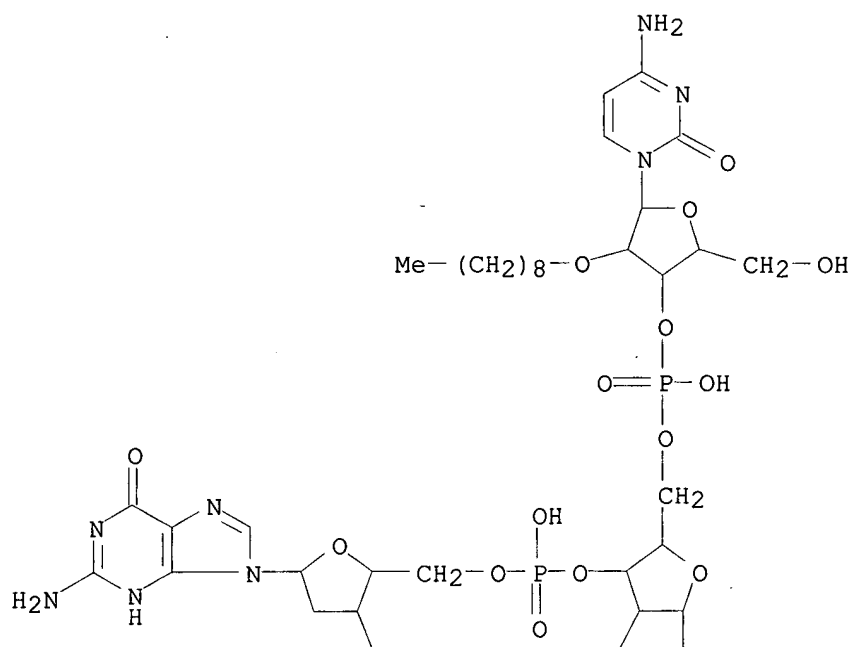
PAGE 2-A



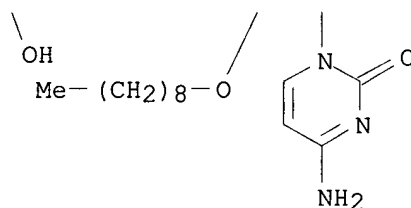
RN 170471-37-1 HCAPLUS  
 CN Guanosine, 2'-O-nonylcytidyl- (3'.fwdarw.5')-2'-O-nonylcytidyl-  
 (3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)



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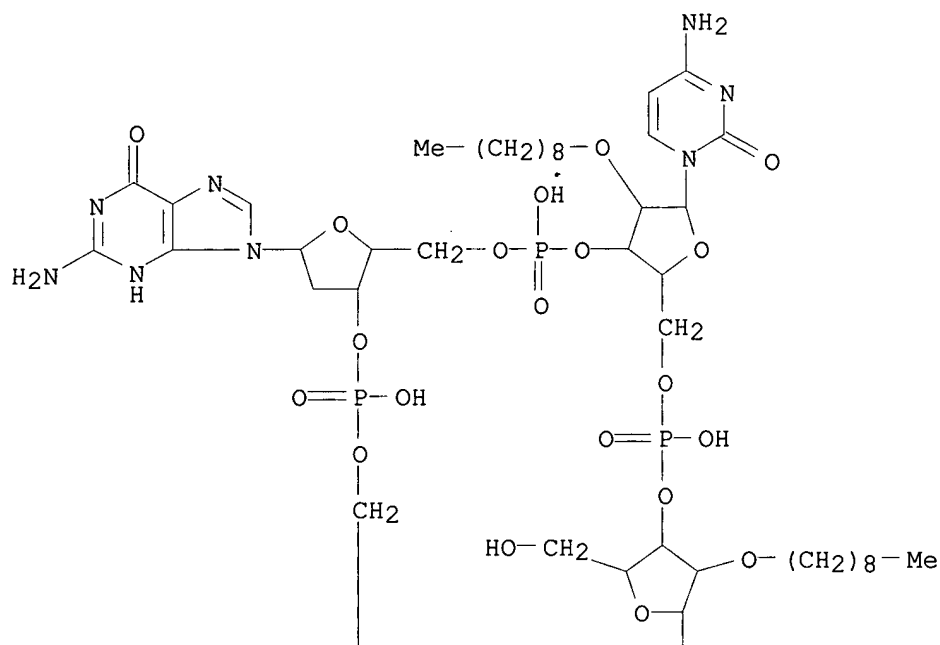


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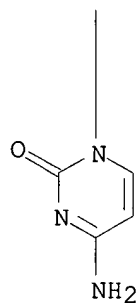
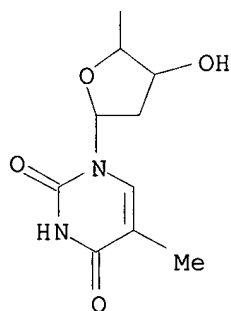


RN 170471-39-3 HCAPLUS  
 CN Thymidine, 2'-O-nonylcytidyl-(3'.fwdarw.5')-2'-O-nonylcytidyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')- (9CI) (CA INDEX NAME)

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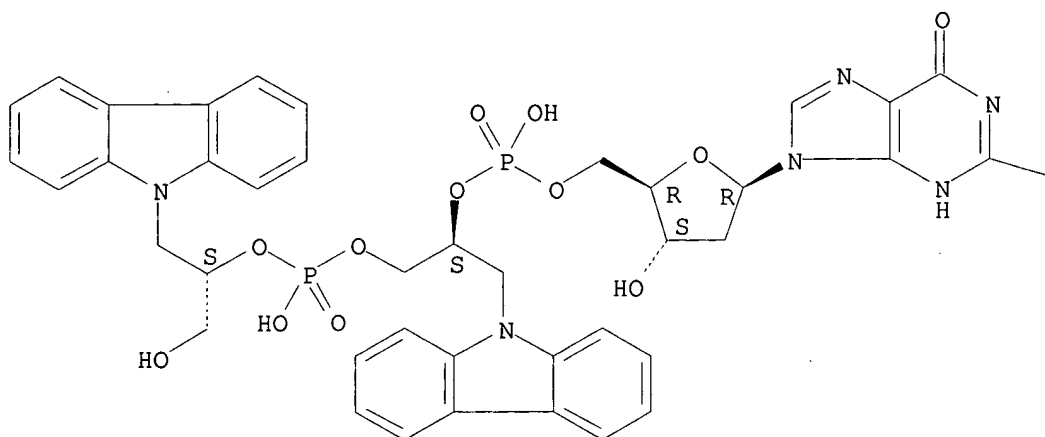


RN 170471-42-8 HCAPLUS

CN 5'-Guanylic acid, 2'-deoxy-, mono[2-(9H-carbazol-9-yl)-1-[[[2-(9H-carbazol-9-yl)-1-(hydroxymethyl)ethoxy]hydroxyphosphinyl]oxy]methyl]ethyl] ester, [S-(R\*,R\*)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—NH<sub>2</sub>

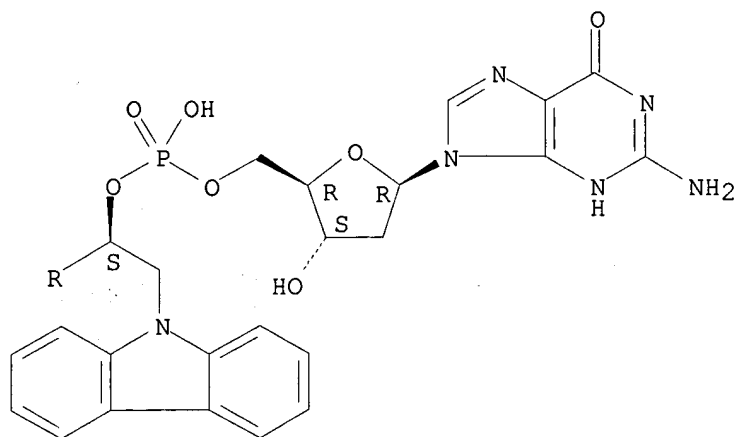
RN 170471-43-9 HCAPLUS

CN 5'-Guanylic acid, 2'-deoxy-, mono[1-(9H-carbazol-9-ylmethyl)-2-(phosphonooxy)ethyl] ester, 3'-ester with  
1-[5-O-[[2-(9H-carbazol-9-yl)-1-

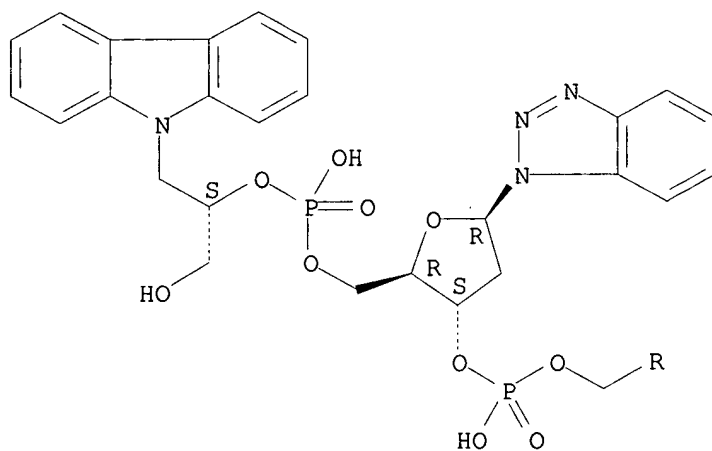
[[[2-(9H-carbazol-9-yl)-1-(hydroxymethyl)ethoxy]hydroxyphosphinyl]oxy]methyl]ethoxy]hydroxyphosphinyl]-2-deoxy-.beta.-D-erythro-pentofuranosyl]-1H-benzotriazole, [S-(R\*,R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



=> d bib abs hitstr 144 38

L44 ANSWER 38 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1995:784846 HCAPLUS  
DN 123:190480  
TI Methods for isolation of most abundant oligonucleotides from complex mixtures  
IN Beutel, Bruce A.; Coppola, George R.; Sherman, Michael I.; Cook, Alan F.; Fathi, Reza; Gao, Hetian; Rudolph, M. Jonathan; Bertelsen, Arthur H.  
PA Pharmagenics, Inc., USA  
SO PCT Int. Appl., 88 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

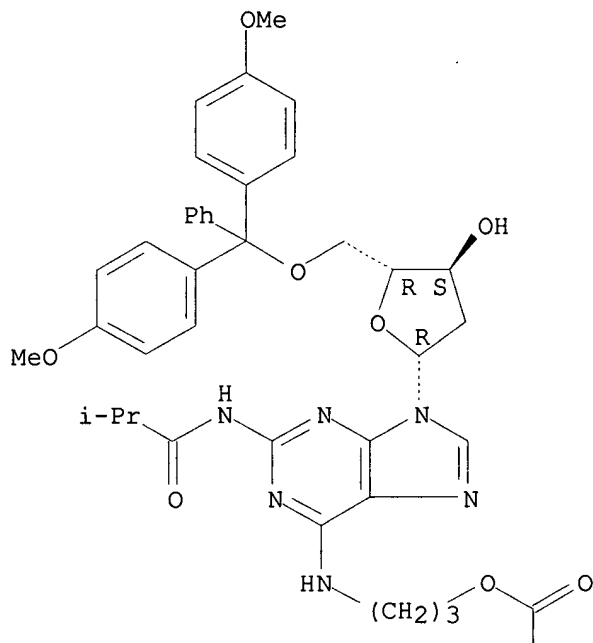
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9506751	A1	19950309	WO 1994-US9728	19940826
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9477170	A1	19950322	AU 1994-77170	19940826
PRAI	US 1993-115470		19930901		
	WO 1994-US9728		19940826		
AB	The method of the present invention allows for screening of very large libraries of nucleic acids but does not require the reiterative PCR and binding steps customary in prior art methods. Instead there is only a single exposure to target followed by steps designed to identify those sequence that are most abundant in the selected mixt. Thus, double-stranded nucleic acids present in a mixt. thereof are converted to individual strands which are renatured under conditions which favor reannealing of the nucleic acids present at higher than av. concns. in the original mixt. The procedure can be used for identifying nucleic acids which bind to a target mol. or other compds. which bind to a target mol. (such as peptides or modified oligonucleotides) by using nucleic acids as a coding portion of a chimeric mol. which includes such compds. These chimeric mols. could be a combinatorial library comprising mols. contg. sep. target-binding and coding portions as described by Brenner and Lerner (Proc. Natl. Acad. Sci., 1992). A solid phase contg. a branched linker mol., one reactive group being protected with dimethoxytrityl and one with Fmoc, was prep'd. This modified matrix allows selective synthesis of, for example, an oligonucleotide on either arm of the linker. Such a matrix was used to prep. an RNA combinatorial library and the enrichment method of the invention was used to identify RNA mols. with high affinity for basic fibroblast growth factor.				
IT	<b>167545-73-5P 167545-74-6P</b> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of solid matrix with branched linker for construction of <b>combinatorial libraries</b> )				
RN	167545-73-5 HCAPLUS				
CN	Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-N-[3-[[[(9H-fluoren-9-ylmethoxy)carbonyl]oxy]propyl]-2-[(2-methyl-1-oxopropyl)amino]-(9CI) (CA INDEX NAME)				

Searched by John Dantzman

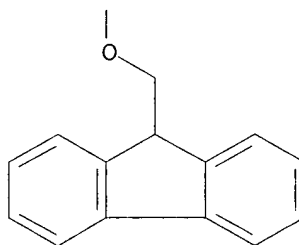
308-4488

Absolute stereochemistry.

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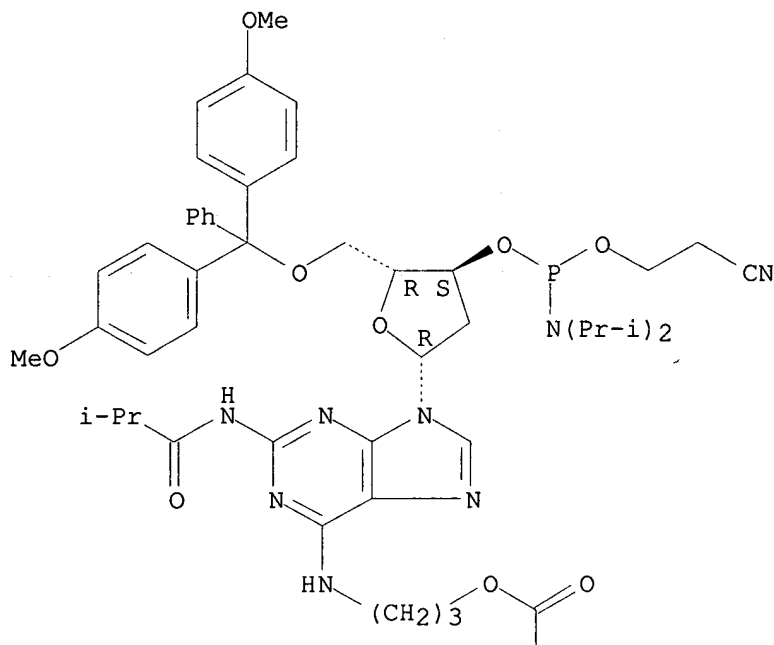


RN 167545-74-6 HCAPLUS

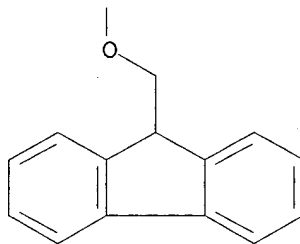
CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-N-[3-[(9H-fluoren-9-ylmethoxy)carbonyl]oxy]propyl]-2-[(2-methyl-1-oxopropyl)amino]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



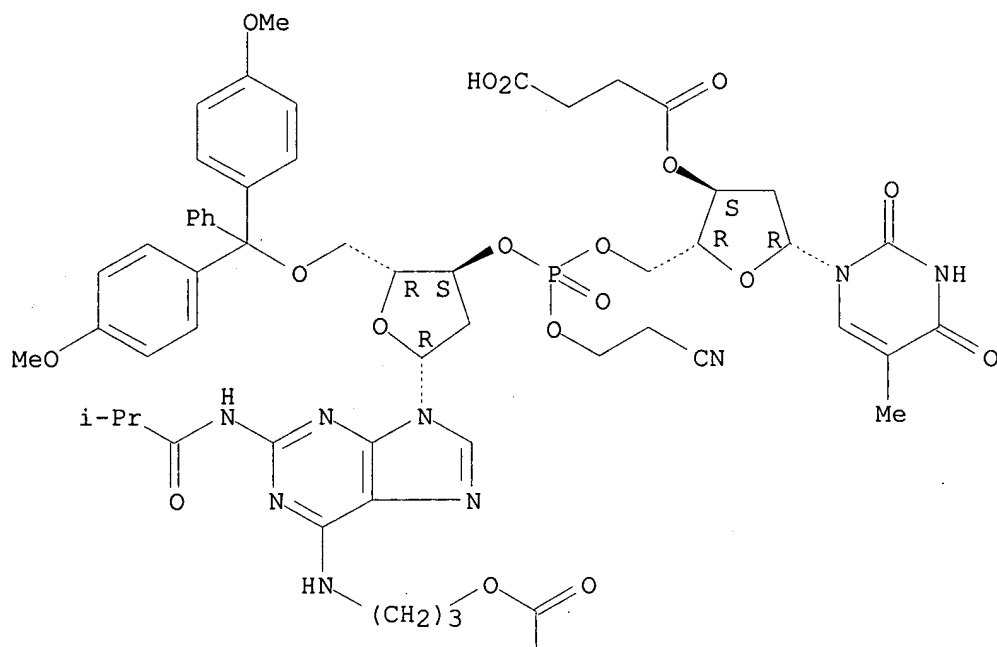
PAGE 2-A



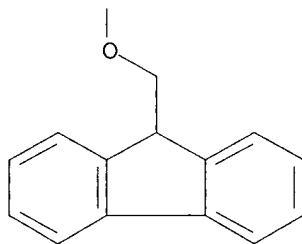
IT 167545-64-4DP, conjugates with resin  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of solid matrix with branched linker for construction of  
**combinatorial libraries**)  
 RN 167545-64-4 HCAPLUS  
 CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-cyanoethyl)-2'-  
 deoxy-N-[3-[[ (9H-fluoren-9-ylmethoxy) carbonyl]oxy]propyl]-2-[(2-methyl-1-  
 oxopropyl)amino]adenylyl-(3'.fwdarw.5')-, 3'-(hydrogen butanedioate)  
 (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.

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=> d bib abs hitstr 144 39

L44 ANSWER 39 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1995:522048 HCAPLUS  
DN 123:103762  
TI Construction of a human genomic library of clones containing  
poly(dG-dA).cntdot.poly(dT-dC) tracts by Mg2+-dependent triplex affinity  
capture. DNA polymorphism associated with the tracts  
AU Nishikawa, Naoko; Oishi, Michio; Kiyama, Ryoiti  
CS Inst. Molecular and Cellular Biosciences, Univ. Tokyo, Tokyo, 113, Japan  
SO J. Biol. Chem. (1995), 270(16), 9258-64  
CODEN: JBCHA3; ISSN: 0021-9258  
DT Journal  
LA English  
AB Microsatellite DNA is a useful tool for detecting DNA polymorphisms among  
species or individuals, esp. those among closely related individuals. A  
library of clones was constructed that contained poly(dG-  
dA).cntdot.poly(dT-dC) tracts from human genomic DNA by Mg2+-dependent  
triplex DNA formation. Examn. of triplex DNA formation in the presence  
of various metal ions Mg2+, Mn2+, or Zn2+ revealed that the procedure worked  
best in the presence of Mg2+. Affinity enrichment was performed with  
AluI-digested chromosomal DNA mixed with biotinylated (dG-dA)17 in the  
presence of Mg2+. A library constructed after three cycles of affinity  
enrichment showed that >80% of the clones contained at least one  
poly(dG-dA).cntdot.poly(dT-dC) tract. Most of them contained a perfect  
(dG-dA)n repeat 30-84 bp in length, whereas some contained variants such  
as (dC-dT)10-(dC)-(dC-dT)9. Using the clones from the library as a  
probe,  
DNA polymorphisms assocd. with the repeat length of the tracts were  
detected in the Japanese population. A microsatellite instability was  
also detected among the tracts in a cancer tissue sample.  
IT 29627-66-5  
RL: BOC (Biological occurrence); PRP (Properties); BIOL (Biological  
study); OCCU (Occurrence)  
(construction of a human genomic **library** of clones contg.  
poly(dG-dA).cntdot.poly(dT-dC) tracts by Mg2+-dependent triplex  
affinity capture and DNA polymorphism assocd. with the tracts)  
RN 29627-66-5 HCAPLUS  
CN Adenosine, 2'-deoxy-5'-O-phosphonoguanilyl-(3'.fwdarw.5')-2'-deoxy-,  
homopolymer, complex with 5'-O-phosphonothymidylyl-(3'.fwdarw.5')-2'-  
deoxycytidine homopolymer (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 49718-20-9  
CMF (C20 H26 N10 O12 P2)x  
CCI PMS

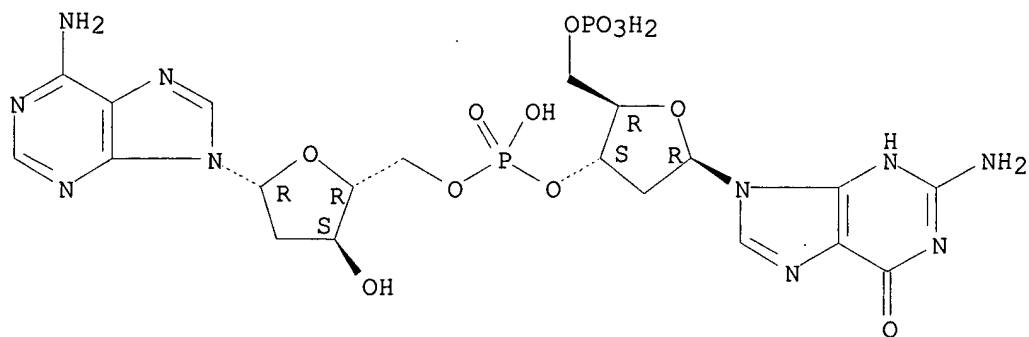
CM 2

CRN 38665-19-9  
CMF C20 H26 N10 O12 P2  
CDES 5:B-D-ERYTHRO,B-D-ERYTHRO

Searched by John Dantzman

308-4488

Absolute stereochemistry.



CM 3

CRN 36906-84-0

CMF (C19 H27 N5 O14 P2)x

CCI PMS

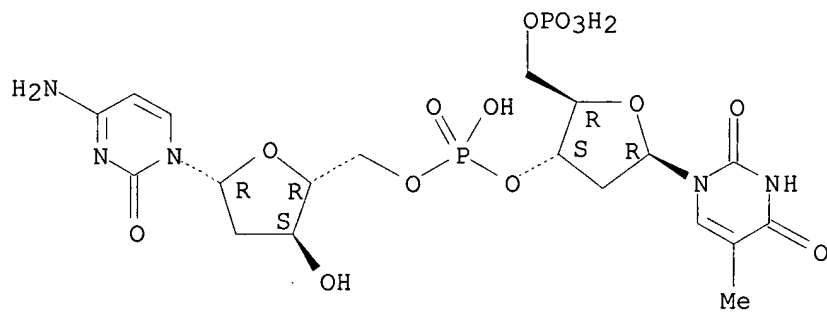
CM 4

CRN 2147-10-6

CMF C19 H27 N5 O14 P2

CDES 5:B-D-ERYTHRO, B-D-ERYTHRO

Absolute stereochemistry.

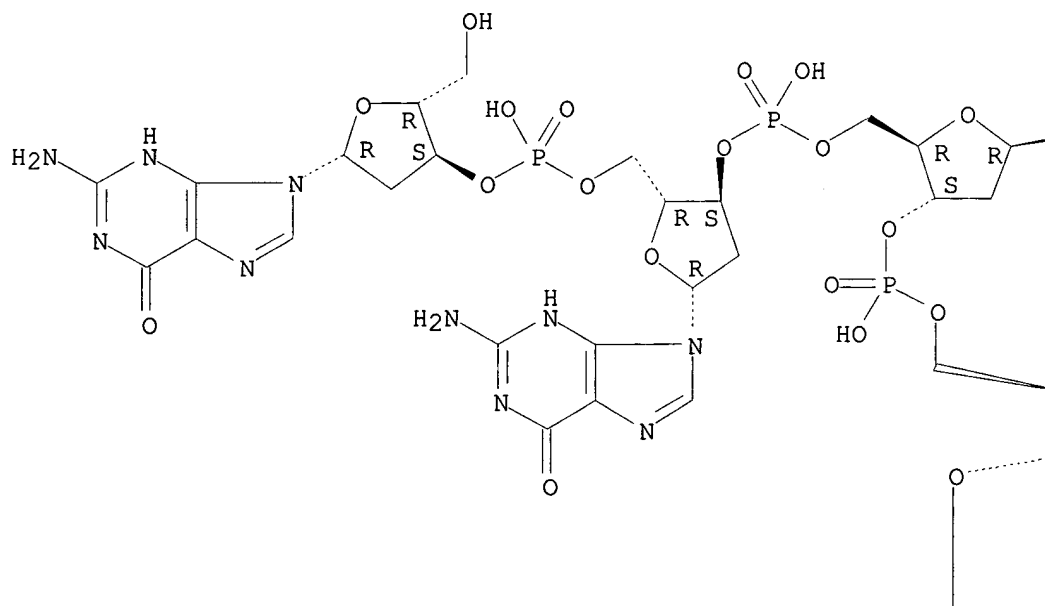


=> d bib abs hitstr 144 40

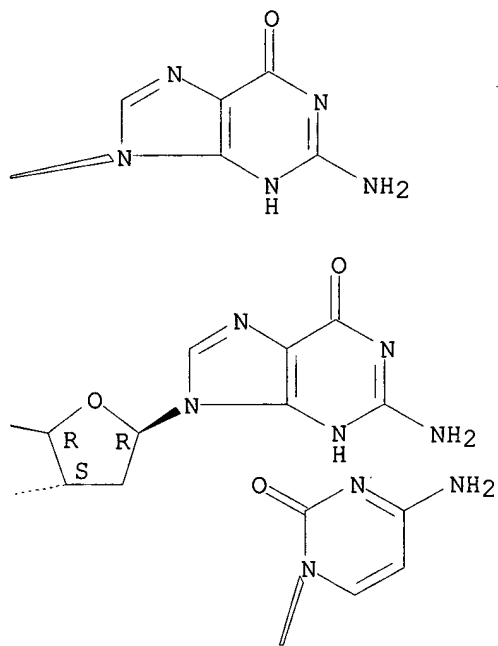
L44 ANSWER 40 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1994:597006 HCAPLUS  
DN 121:197006  
TI Screening of a mouse/human Y-chromosomal cosmid library for gene  
candidates and markers by using (short) oligonucleotide probes  
AU Traeger, Thorsten; Schmidt, Petra; Epplen, Jorg T.  
CS Ruhr Univ., Bochum, Germany  
SO Electrophoresis (1994), 15(7), 871-9  
CODEN: ELCTDN; ISSN: 0173-0835  
DT Journal  
LA English  
AB A comprehensive approach is described for the identification of sequences  
of interest from a human Y chromosomal cosmid library via (short)  
consensus oligonucleotide probes. It involves the ordering of cosmid  
clones grown in microtiter plates onto small filter membranes by a robot  
workstation. A high no. of the clones are characterized by their  
repetitive sequence content, either by ubiquitously interspersed simple  
tandem blocks or by Y-specific elements. The Y chromosomal repeat (DYZ2)  
appears underrepresented in the library. In contrast many novel  
microsatellite marker systems can now be developed for the Y chromosome  
on the basis of the simple repeat blocks described here. Though novel genes  
were not yet delineated so far, a no. of candidate sequences with high  
coding potential and other interesting characteristics are described.  
IT 69374-98-7 80458-01-1 82709-23-7  
89991-79-7 139593-83-2 157931-98-1  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(CpG island probe; screening of human Y-chromosomal cosmid  
library for gene candidates and markers using short  
oligonucleotide probes)  
RN 69374-98-7 HCAPLUS  
CN Cytidine,  
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-  
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

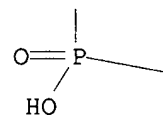
PAGE 1-A



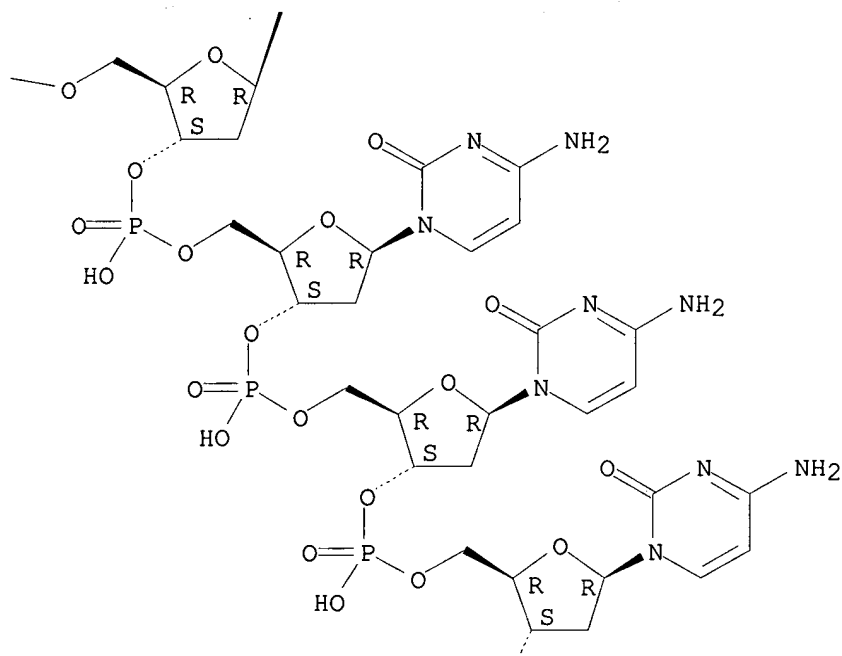
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HO

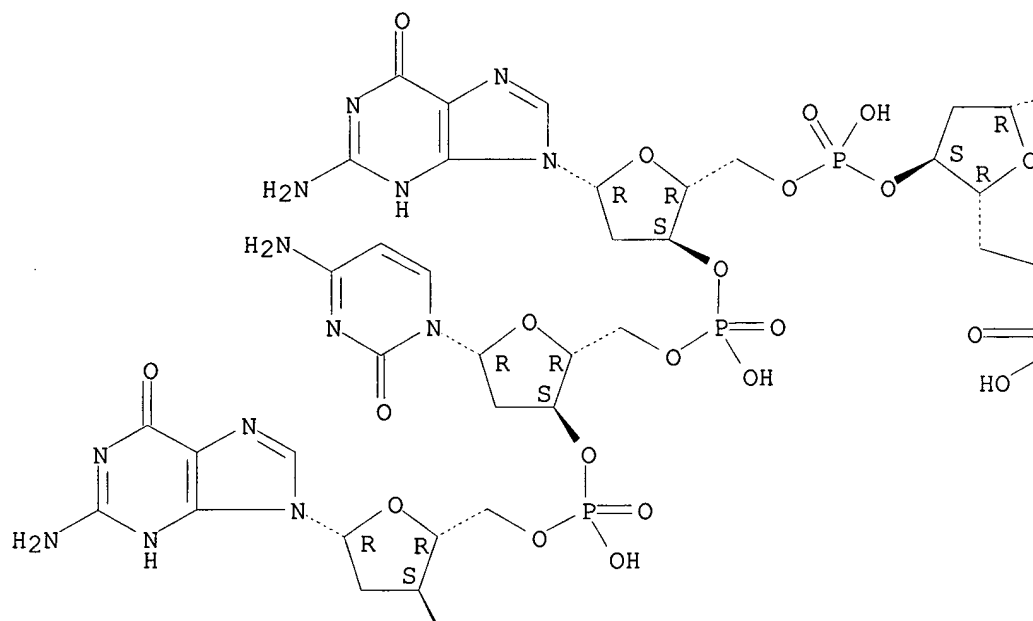
RN 80458-01-1 HCAPLUS

CN Cytidine,

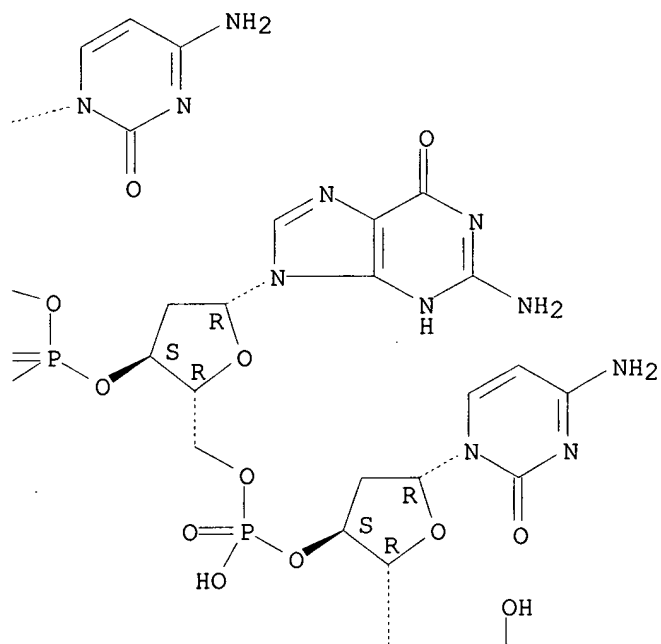
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 2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
 deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
 deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

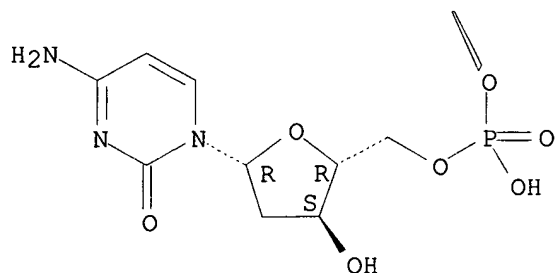
PAGE 1-A



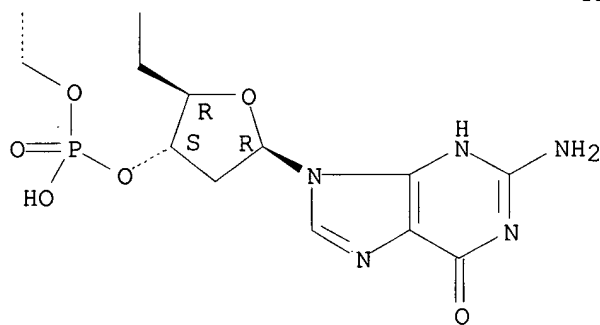
PAGE 1-B



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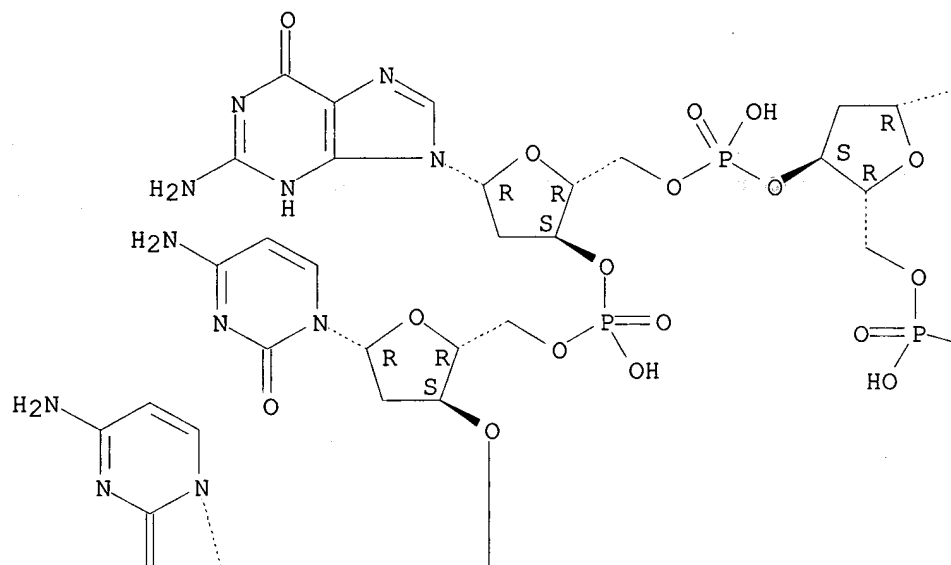
RN 82709-23-7 HCAPLUS

CN Cytidine,

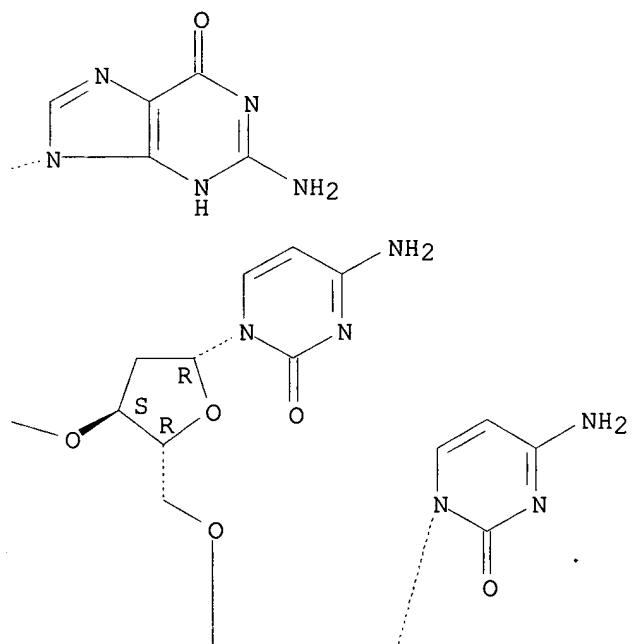
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-  
 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-  
 deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
 deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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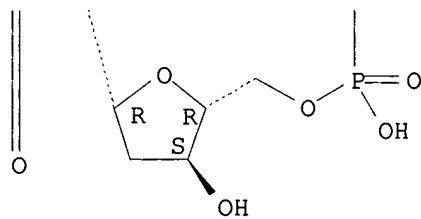


PAGE 1-B

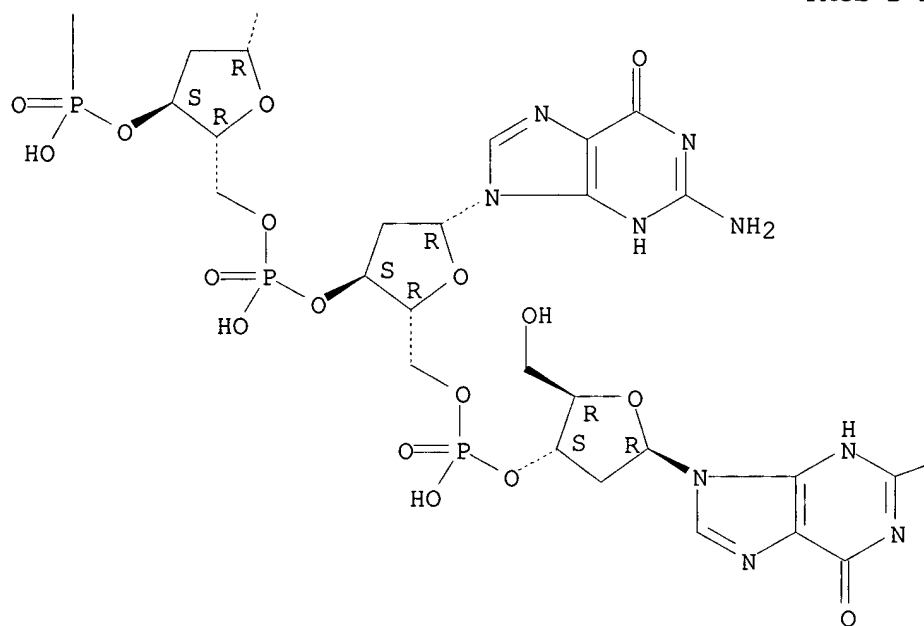




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—NH<sub>2</sub>

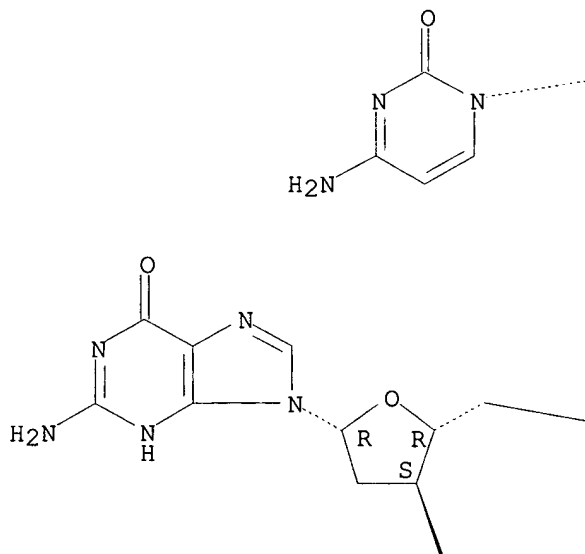
RN 89991-79-7 HCAPLUS

CN Guanosine, 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-  
(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-  
(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-  
(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA

INDEX  
NAME)

Absolute stereochemistry.

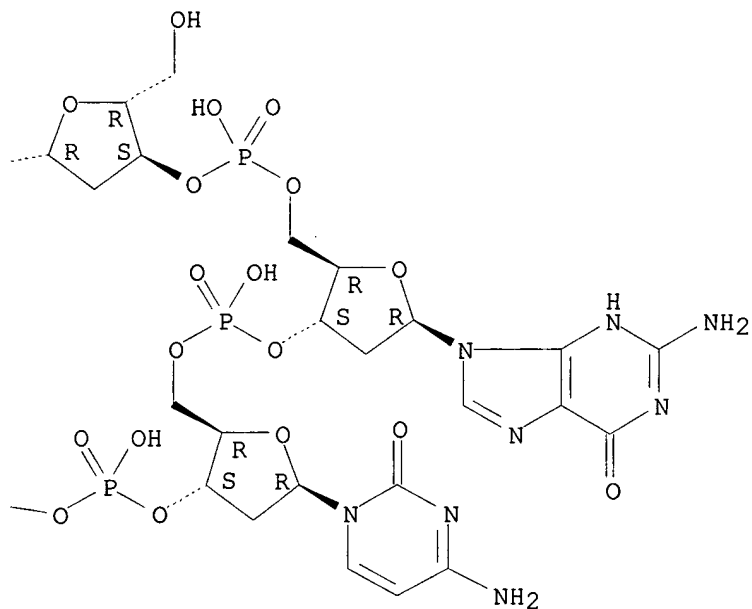
PAGE 1-A



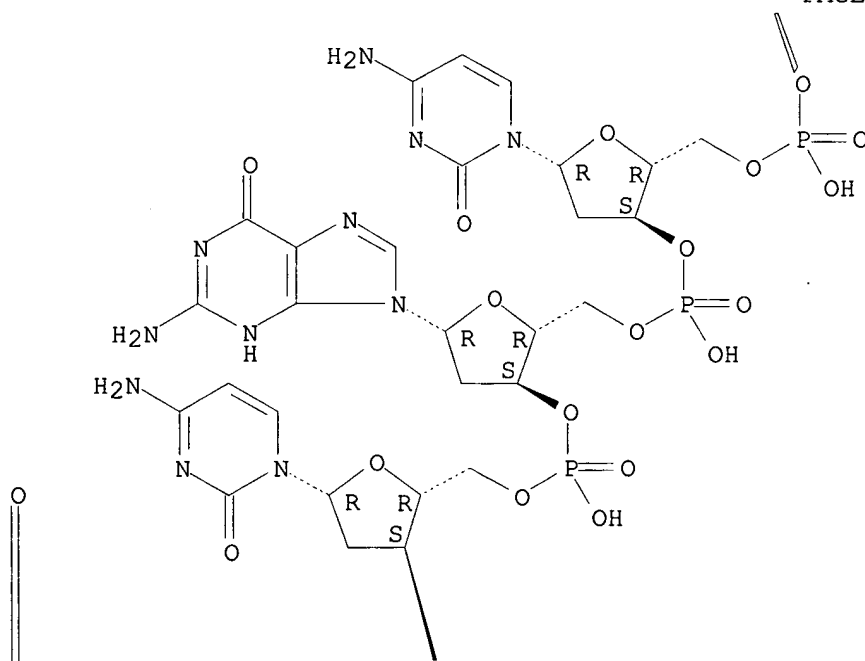
Searched by John Dantzman

308-4488

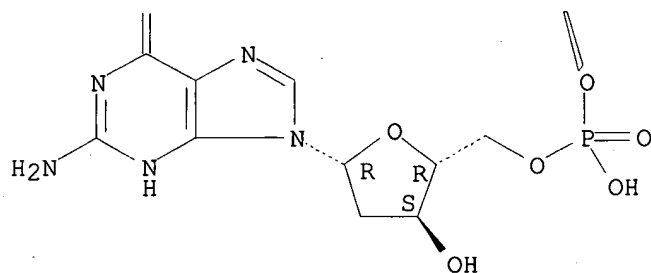
PAGE 1-B



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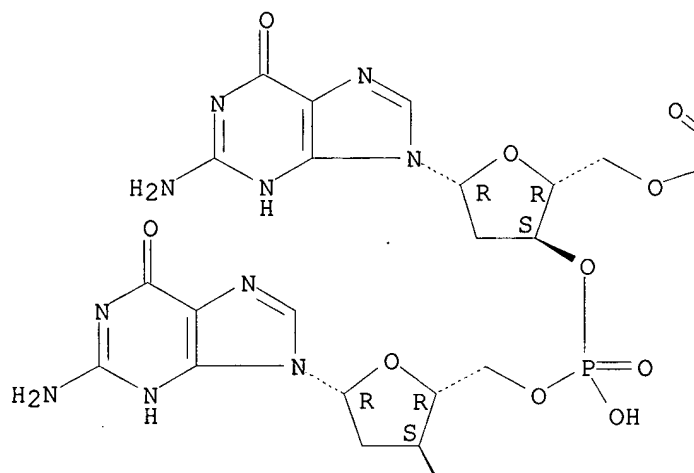
RN 139593-83-2 HCAPLUS

CN Cytidine,

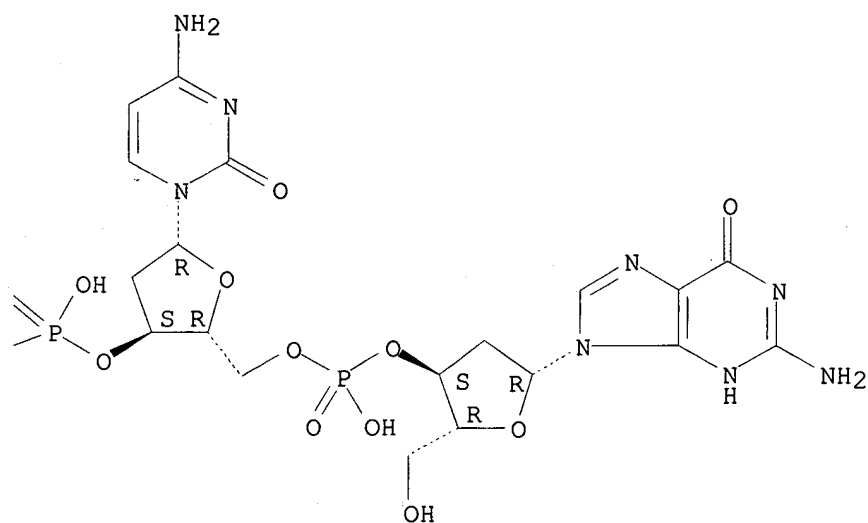
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidyl-(3'.fwdarw.5')-  
 2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
 deoxycytidyl-(3'.fwdarw.5')-2'-deoxycytidyl-(3'.fwdarw.5')-2'-  
 deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

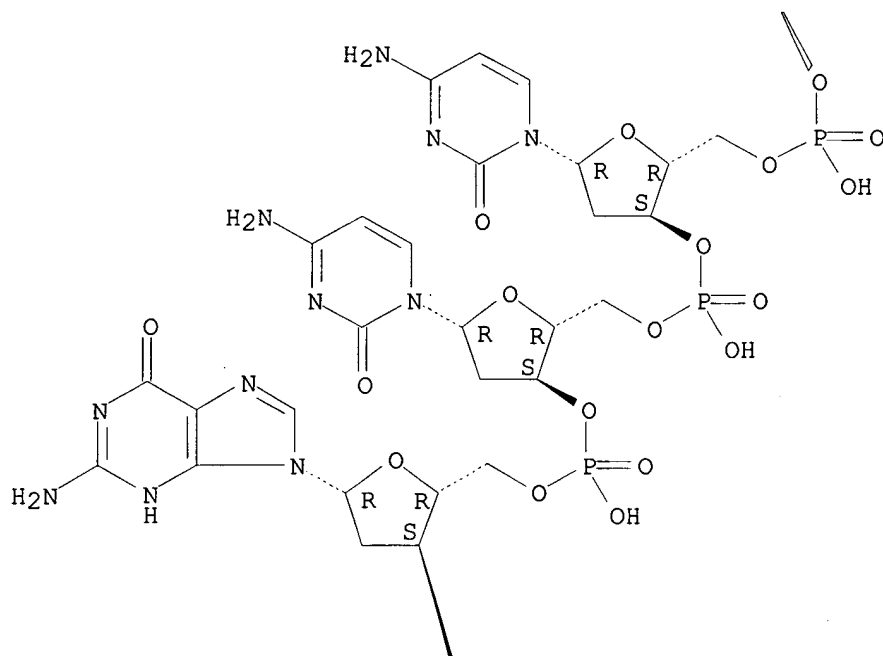
PAGE 1-A



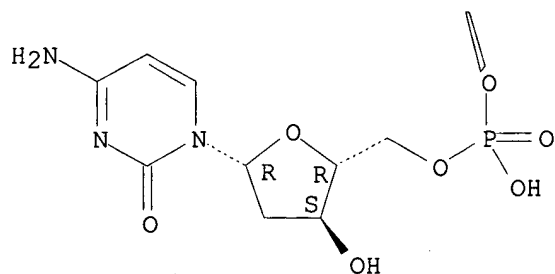
PAGE 1-B



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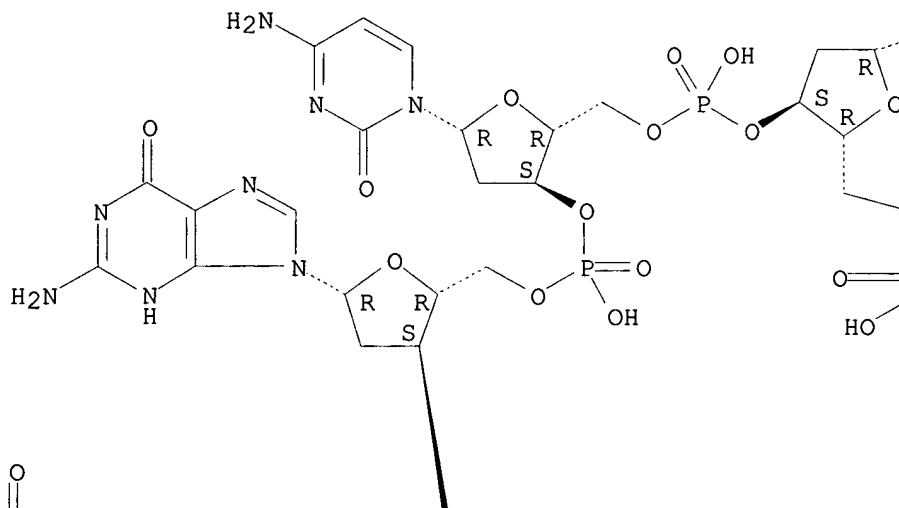
RN 157931-98-1 HCAPLUS

CN	Cytidine,
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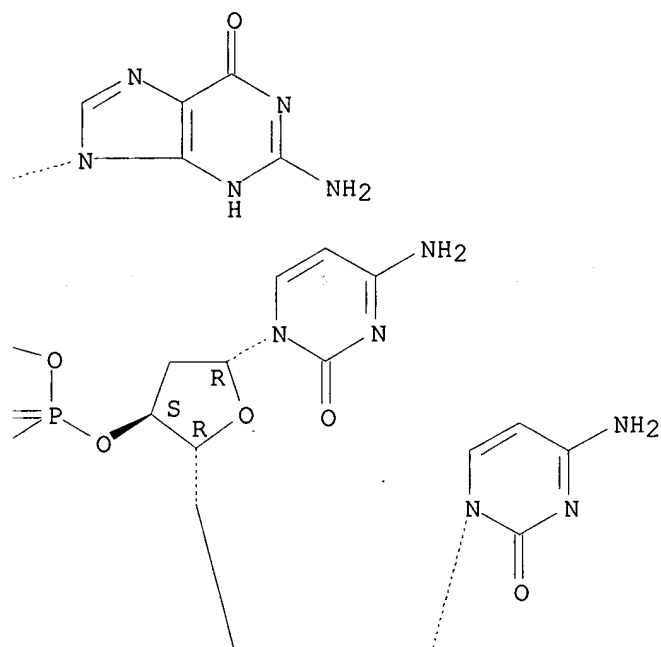
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-  
2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

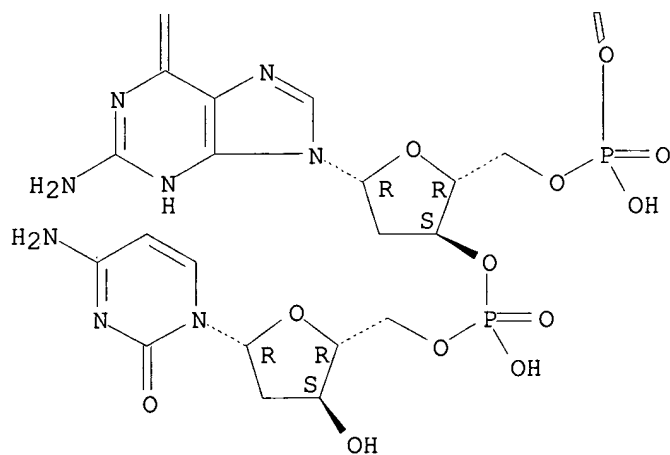
PAGE 1-A



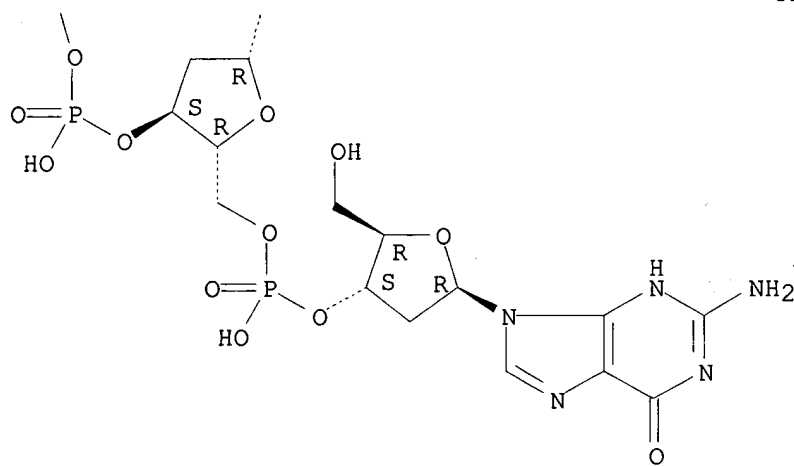
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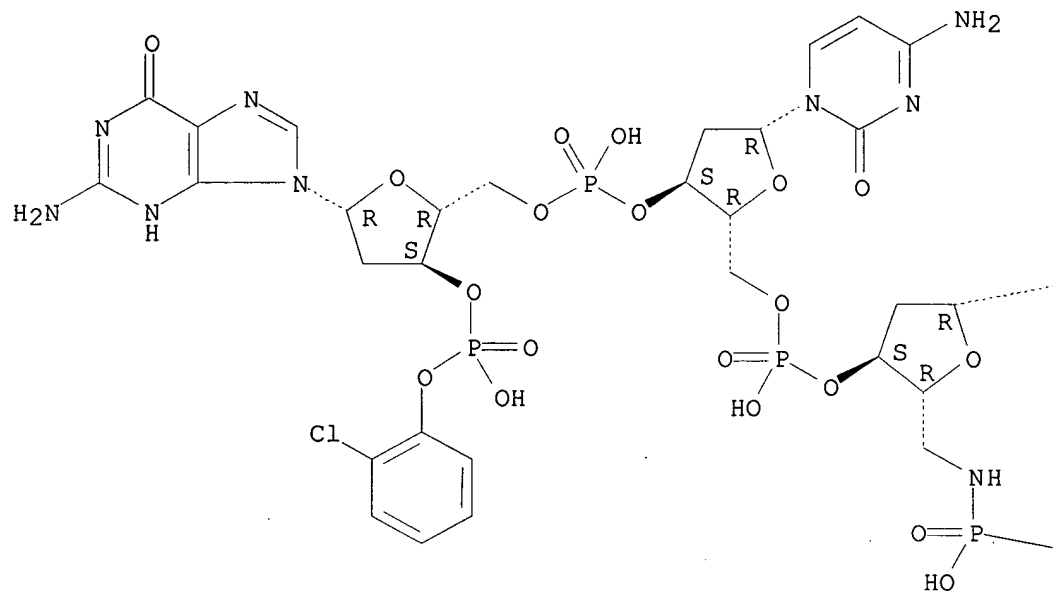




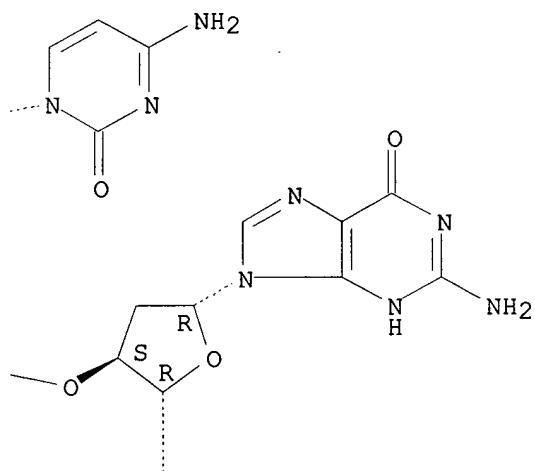
=> d bib abs hitstr 144 41

L44 ANSWER 41 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1994:573216 HCAPLUS  
DN 121:173216  
TI Self-replication of complementary nucleotide-based oligomers  
AU Sievers, D.; von Kledrowski, G.  
CS Inst. Organ. Chem. Biochem., Albert-Ludwigs-Univ., Freiburg, Germany  
SO Nature (London) (1994), 369(6477), 221-4  
CODEN: NATUAS; ISSN: 0028-0836  
DT Journal  
LA English  
AB The development of non-enzymic self-replicating systems based on autocatalytic template-directed reactions is a current objective of bioorg. chem. Typically, a self-complementary template mol. AB is synthesized autocatalytically from two complementary template fragments A and B. Natural replication of nucleic acids, however, utilizes complementary rather than self-complementary strands. Here the authors report on a minimal implementation of this type of replication based on cross-catalytic template-directed syntheses of hexadeoxynucleotide derivs.  
from amino-trideoxynucleotides. In the authors' expts., two self-complementary and two complementary templates compete for their combinatorial synthesis from four common trimeric precursors. The authors provide kinetic evidence that cross-catalytic self-replication of complementary templates can proceed with an efficiency similar to that of autocatalytic self-replication of self-complementary templates. The authors observe selective stimulation of template synthesis, and thus information transfer, on seeding the reaction mixts. with one of four chem. labeled templates bearing the sequence of the reaction products. The authors' results bring a stage closer the development of schemes that might explain how replicating systems based on nucleic acids arose on the prebiotic Earth.  
IT 157685-00-2P 157685-01-3P 157685-02-4P  
157685-03-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, **combinatorial**, self-replication of complementary vs. self-complementary templates in relation to)  
RN 157685-00-2 HCAPLUS  
CN 3'-Guanylic acid, 5'-azido-2',5'-dideoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylylimino-(3'.fwdarw.5')-2',5'-dideoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy-, 3'-(2-chlorophenyl) ester (9CI) (CA INDEX NAME)  
Absolute stereochemistry.

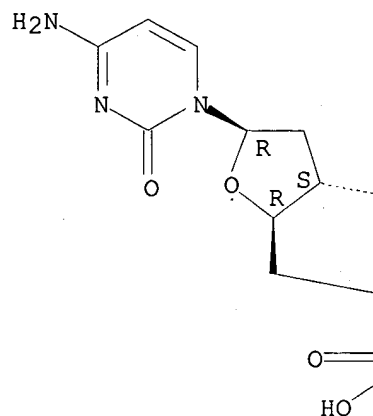
PAGE 1-A



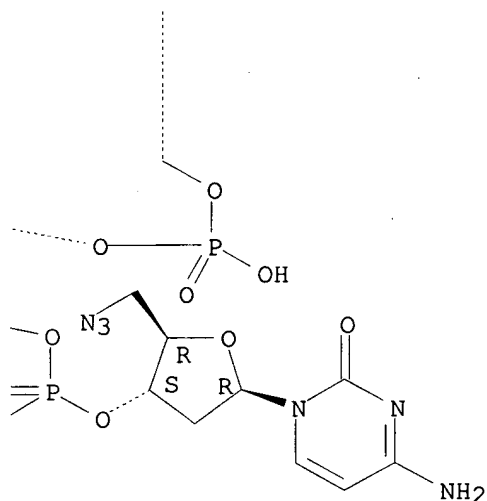
PAGE 1-B



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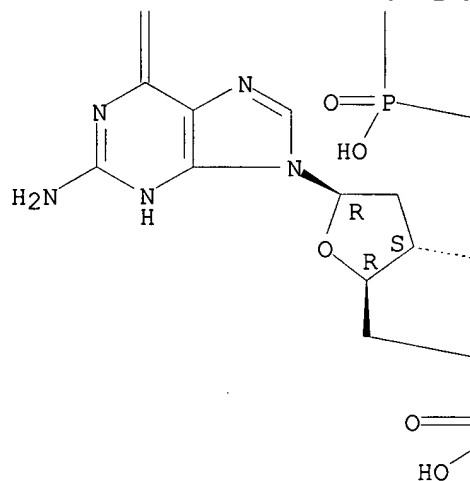
RN 157685-01-3 HCAPLUS

CN 3'-Guanylic acid, 5'-azido-2',5'-dideoxycytidylyl-(3'.fwdarw.5')-2'-  
deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylylimino-(3'.fwdarw.5')-2',5'-dideoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy-,  
3'-(2-chlorophenyl) ester (9CI) (CA INDEX NAME)

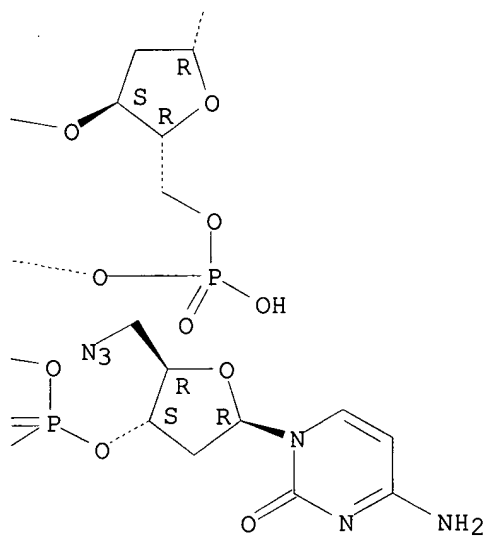
Absolute stereochemistry.



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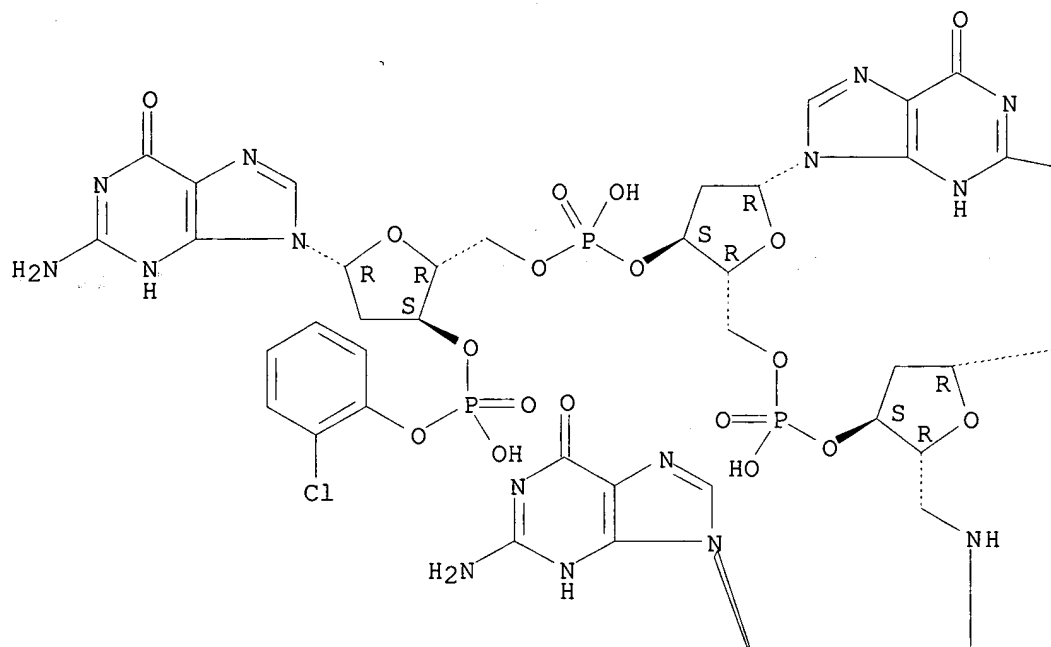
RN 157685-02-4 HCAPLUS

CN 3'-Guanylic acid, 5'-azido-2',5'-dideoxycytidylyl-(3'.fwdarw.5')-2'-  
dideoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylylimino-(3'.fwdarw.5')-2',5'-

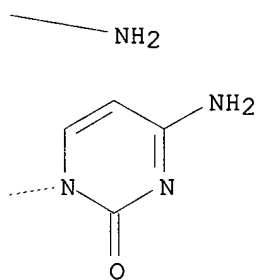
dideoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy-,  
3'-(2-chlorophenyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

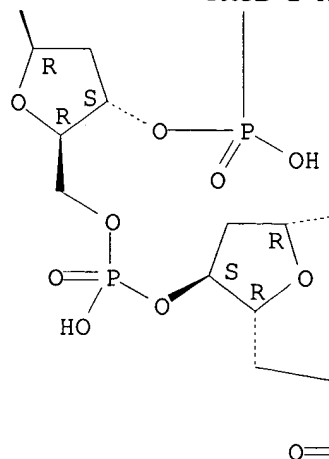
PAGE 1-A



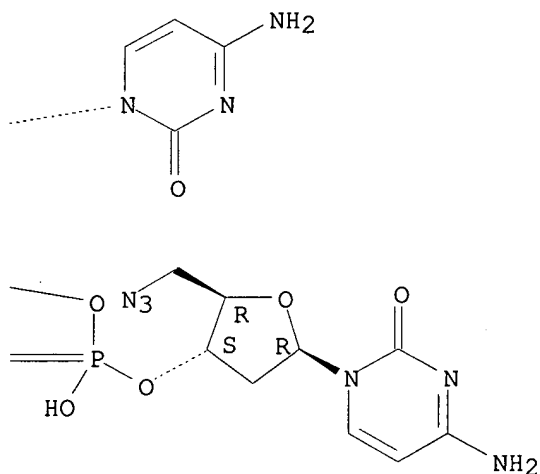
PAGE 1-B



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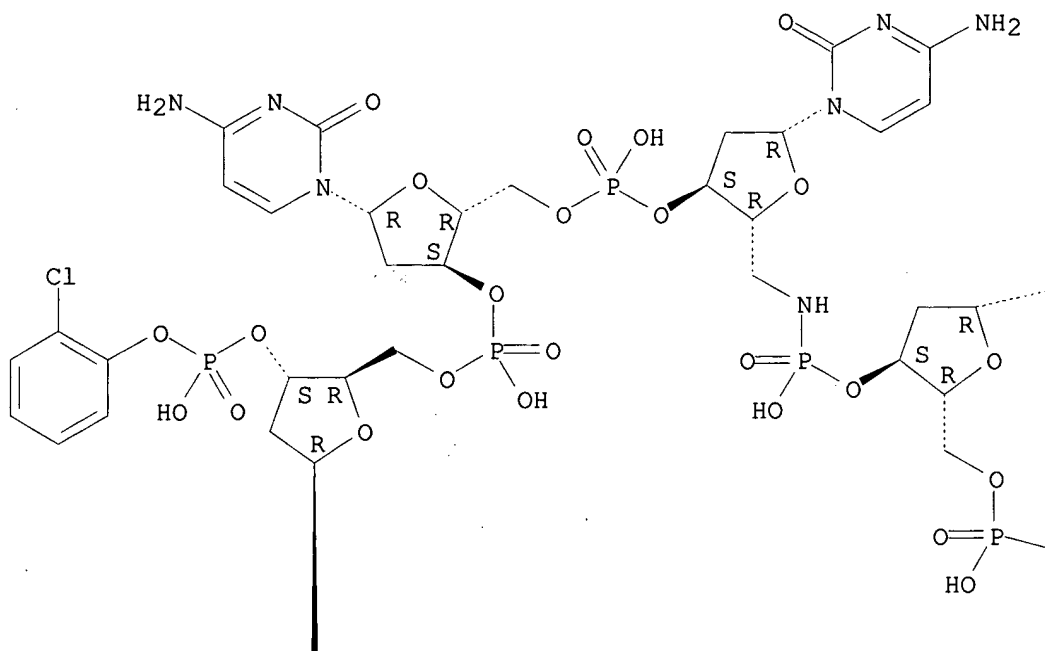


RN 157685-03-5 HCAPLUS

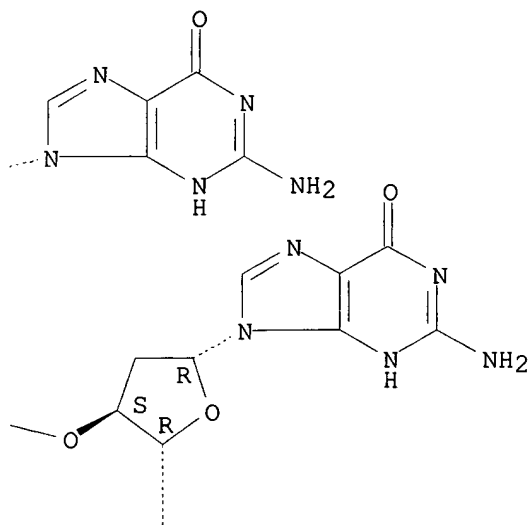
CN 3'-Guanylic acid, 5'-azido-2',5'-dideoxycytidylyl-(3'.fwdarw.5')-2'-  
 deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylylimino-(3'.fwdarw.5')-2',5'-  
 dideoxycytidylyl-(3'.fwdarw.5')-2'-dideoxycytidylyl-(3'.fwdarw.5')-2'-deoxy-  
 , 3'-(2-chlorophenyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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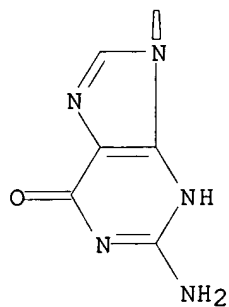


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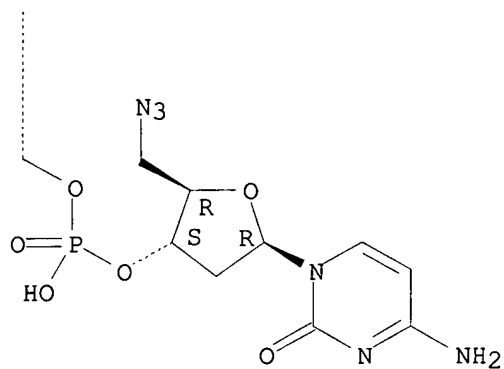




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=> d bib abs hitstr 144 42

L44 ANSWER 42 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1994:500749 HCAPLUS

DN 121:100749

TI Light-generated oligonucleotide arrays for rapid DNA sequence analysis

AU Pease, Ann Caviani; Solas, Dennis; Sullivan, Edward J.; Cronin, Maureen T.; Holmes, Christopher P.; Fodor, Stephen P. A.

CS Affymetrix, Santa Clara, CA, 95051, USA

SO Proc. Natl. Acad. Sci. U. S. A. (1994), 91(11), 5022-6

CODEN: PNASA6; ISSN: 0027-8424

DT Journal

LA English

AB In many areas of mol. biol. there is a need to rapidly ext. and analyze genetic information; however, current technologies for DNA sequence anal. are slow and labor intensive. The authors report here how modern photolithog. techniques can be used to facilitate sequence anal. by generating miniaturized arrays of densely packed oligonucleotide probes. These probe arrays, or DNA chips, can then be applied to parallel DNA hybridization anal., directly yielding sequence information. In a preliminary expt., a 1.28 .times. 1.28 cm array of 256 different octanucleotides was produced in 16 chem. reaction cycles, requiring 4 h

to complete. The hybridization pattern of fluorescently labeled oligonucleotide targets was then detected by epifluorescence microscopy. The fluorescence signals from complementary probes were 5-35 times stronger than those with single or double base-pair hybridization mismatches, demonstrating specificity in the identification of complementary sequences. This method should prove to be a powerful tool for rapid investigations in human genetics and diagnostics, pathogen detection, and DNA mol. recognition.

IT 156876-24-3P

RL: PREP (Preparation)

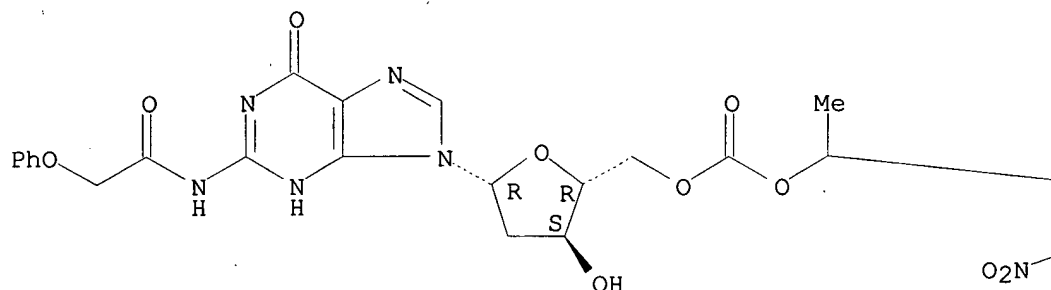
(prepn. and coupling reaction with dimethoxytrityl-hexaethyloxy-O-cyanoethyl phosphoramidite of, for octadeoxyribonucleotide **combinatorial library** prepn. using photolithog.)

RN 156876-24-3 HCAPLUS

CN Guanosine, 2'-deoxy-N-(phenoxyacetyl)-, 5'-[1-(6-nitro-1,3-benzodioxol-5-yl)ethyl carbonate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

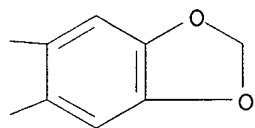
PAGE 1-A



Searched by John Dantzman

308-4488

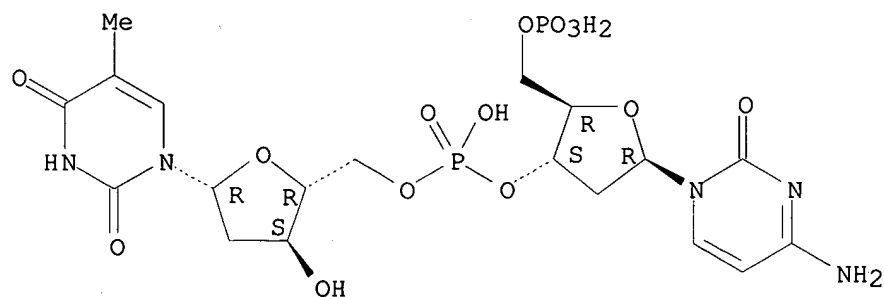
PAGE 1-B



=> d bib abs hitstr 144 43

L44 ANSWER 43 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1992:100255 HCAPLUS  
DN 116:100255  
TI Sequence-specific DNA purification by triplex affinity capture  
AU Ito, Takashi; Smith, Cassandra L.; Cantor, Charles R.  
CS Dep. Mol. Cell Biol., Univ. California, Berkeley, CA, 94720, USA  
SO Proc. Natl. Acad. Sci. U. S. A. (1992), 89(2), 495-8  
CODEN: PNASA6; ISSN: 0027-8424  
DT Journal  
LA English  
AB A DNA isolation procedure was developed by using triple-helix formation and magnetic sepn. In this procedure, target DNA is captured by a biotinylated oligonucleotide via intermol. triplex formation, bound to streptavidin-coated magnetic beads, and recovered in double-stranded form by elution with a mild alk. buffer that destabilizes the triple helix. The effectiveness of the procedure was demonstrated by a model expt. with artificially reconstructed library and, also, by the isolation of dT-dC)n.(dG-dA)n dinucleotide repeats from a human genomic library. This procedure provides a prototype for other triplex-mediated DNA isolation technologies.  
IT **36833-12-2P**  
RL: PREP (Preparation)  
(dinucleotide repeat, isolation from human genomic **library** of, by triplex affinity capture and magnetic sepn.)  
RN 36833-12-2 HCAPLUS  
CN Guanosine, 2'-deoxy-5'-O-phosphonoadenylyl-(3'.fwdarw.5')-2'-deoxy-, homopolymer, complex with  
2'-deoxy-5'-O-phosphonocytidylyl-(3'.fwdarw.5')-thymidine homopolymer (1:1) (9CI) (CA INDEX NAME)  
CM 1  
CRN 49717-92-2  
CMF (C19 H27 N5 O14 P2)x  
CCI PMS  
CM 2  
CRN 15561-99-6  
CMF C19 H27 N5 O14 P2  
CDES 5:B-D-ERYTHRO,B-D-ERYTHRO

Absolute stereochemistry.



CM 3

CRN 49717-71-7

CMF (C20 H26 N10 O12 P2)x

CCI PMS

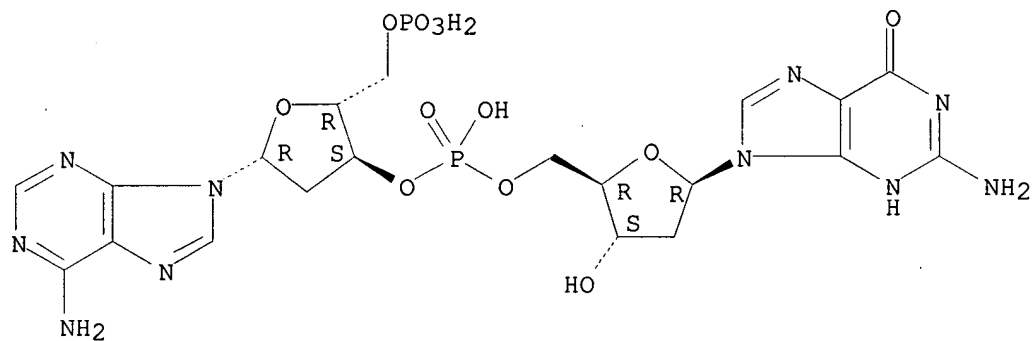
CM 4

CRN 4336-86-1

CMF C20 H26 N10 O12 P2

CDES 5:B-D-ERYTHRO,B-D-ERYTHRO

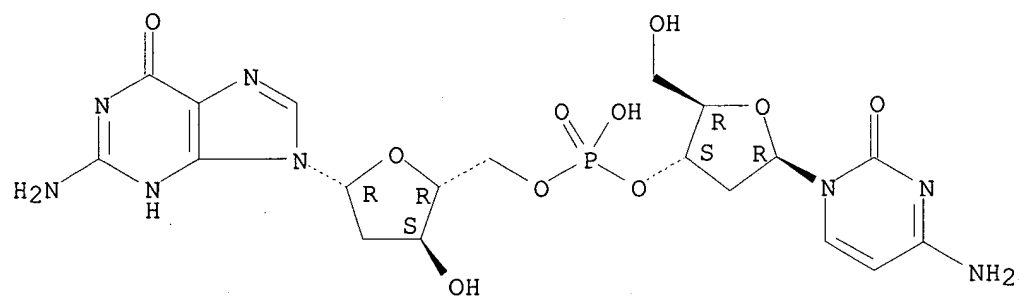
Absolute stereochemistry.



=> d bib abs hitstr 144 44

L44 ANSWER 44 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1992:1542 HCAPLUS  
DN 116:1542  
TI Construction and characterization of a NotI linking library of human chromosome 21  
AU Saito, Akihiko; Abad, Jose P.; Wang, Denan; Ohki, Misao; Cantor, Charles R.; Smith, Cassandra L.  
CS Sch. Med., Niigata Univ., Niigata, 951, Japan  
SO Genomics (1991), 10(3), 618-30  
CODEN: GNMCEP; ISSN: 0888-7543  
DT Journal  
LA English  
AB Effective procedures have been developed for constructing NotI linking libraries starting from chromosome-specific genomic libraries. Fifteen different single copy and two rDNA NotI linking clones from human chromosome 21 were identified in two libraries. Their chromosomal origin was confirmed, and regional location established using hybrid cell panels. Hybridization expts. with these probes revealed pairs of genomic NotI fragments, each ranging in size from <0.05 to 4.0 Mb. Many fragments displayed cell type variation. The total size of the NotI fragments detected in a human fibroblast cell line (GM6167) and mouse hybrid cell contg. chromosome 21 as its only human component (WAV17) were approx. 32 and 34 Mb, resp. If these fragments were all nonoverlapping, this would correspond to about 70% of the 50-Mb content estd. for the whole chromosome. The linking clones will be enormously useful in the subsequent construction of a NotI restriction map of this chromosome. Characterization of these clones indicates the presence of numerous addnl. sites for other enzymes that recognize sequences contg. CpG. Thus, most NotI linking clones appear to derive from CpG islands and probably identify the 5' end of genes.  
IT **15178-66-2**  
RL: PRP (Properties)  
(islands, in human chromosome 21, NotI linking **library** construction in relation to)  
RN 15178-66-2 HCAPLUS  
CN Guanosine, 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy- (7CI, 8CI, 9CI)  
(CA INDEX NAME)

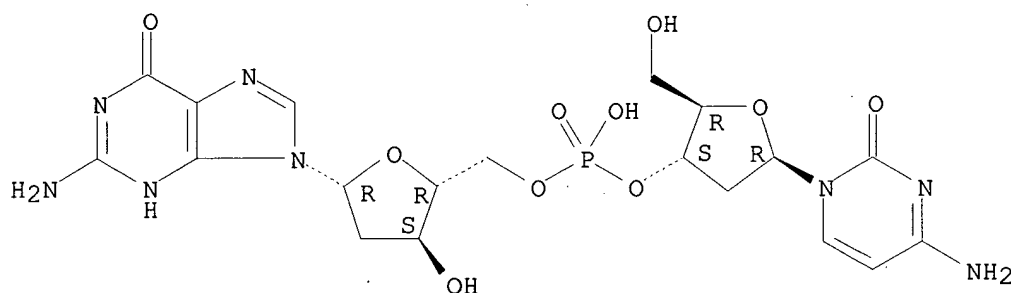
Absolute stereochemistry.



=> d bib abs hitstr 144 45

L44 ANSWER 45 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1991:402354 HCAPLUS  
DN 115:2354  
TI Saturating the region of the polycystic kidney disease gene with NotI linking clones  
AU Himmelbauer, Heinz; Germino, Greg G.; Ceccherini, Isabella; Romeo, Giovanni; Reeders, Stephen T.; Frischauf, Anna Maria  
CS Imp. Cancer Res. Fund, London, WC2A 3PX, UK  
SO Am. J. Hum. Genet. (1991), 48(2), 325-34  
CODEN: AJHGAG; ISSN: 0002-9297  
DT Journal  
LA English  
AB A NotI-linking library was constructed from a radiation hybrid contg. fragments of human chromosome 16. The clones were mapped on a panel of somatic cell hybrids, and 10 different NotI site-contg. clones were localized close to and between genetic markers flanking the PKD1 locus. With pulsed-field gel anal. the clones were shown to be distributed over four adjacent ClaI fragments covering 1200 kb.  
IT 15178-66-2  
RL: PRP (Properties)  
(islands, identification of genes assocd. with, using NotI-linking library)  
RN 15178-66-2 HCAPLUS  
CN Guanosine, 2'-deoxycytidyl-(3'.fwdarw.5')-2'-deoxy- (7CI, 8CI, 9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



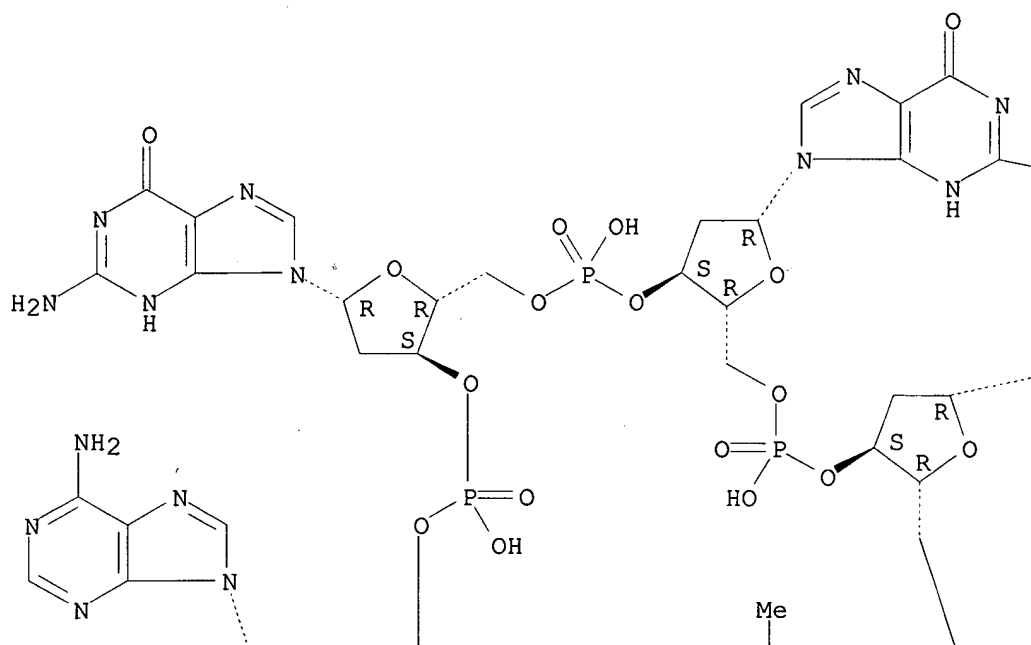


=> d bib abs hitstr 144 46

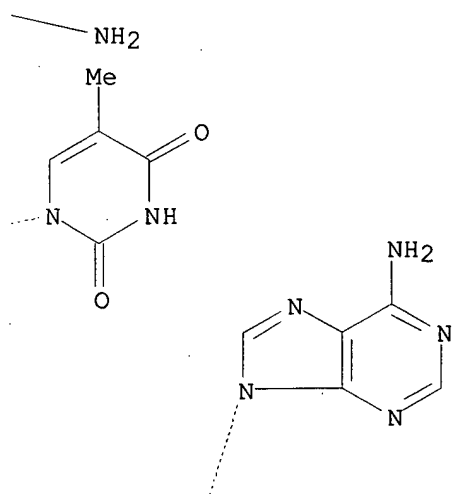
L44 ANSWER 46 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1990:71609 HCAPLUS  
DN 112:71609  
TI An efficient directional cloning system to construct cDNA libraries  
containing full-length inserts at high frequency  
AU Miki, Toru; Matsui, Toshimitsu; Heidaran, Mohammad A.; Aaronson, Stuart  
A.  
CS Lab. Cell. Mol. Biol., Natl. Cancer Inst., Bethesda, MD, 20892, USA  
SO Gene (1989), 83(1), 137-46  
CODEN: GENED6; ISSN: 0378-1119  
DT Journal  
LA English  
AB A high efficiency cDNA cloning system is developed which can direct the  
orientation of inserts in .lambda.-plasmid composite vectors with large  
cloning capacities. Cleavage of the vector DNA by SfiI creates two  
different nonsym. 3' extensions at the ends of the vector arms. Using a  
linker-primer and an adaptor, cDNA is prepd. so it has two different  
sticky ends which can be ligated to those of the vector arms. When the  
cDNA fragments and the vector arms are mixed, both the mols. can assemble  
without self-circularization due to base-pairing specificity. Ligation  
of the cDNA-vector mixt. produces the concetemers from which phage clones  
carrying a single cDNA insert in the desired orientation can be formed  
very efficiently by in vitro packaging. This system provides: (1) high  
cloning efficiency [107-109 clones/.mu.g poly(A)+ RNA], (2) low  
background  
(more than 90% of the clones contain inserts), (3) directional insertion  
of cDNA fragments into the vectors, (4) presence of a single insert in  
each clone, (5) accommodation of long inserts (up to 10 kb), (6) a  
mechanism for rescue of the plasmid part from the .lambda. genome, and  
(7) a straightforward protocol for library prepn. Screenings of cDNA  
libraries constructed by this method demonstrated that cDNAs of up to 6.4  
kb, contg. complete coding sequences, could be isolated at high  
efficiency. Thus, this cloning system should be useful for the isolation  
of cDNAs of relatively long transcripts, present even at low abundance,  
in cells.  
IT 125180-30-5  
RL: PRP (Properties)  
(as DNA insert, in construction of cDNA **library**, cloning  
system for)  
RN 125180-30-5 HCAPLUS  
CN Guanosine, thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-  
deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidylyl-  
(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-  
(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-  
2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

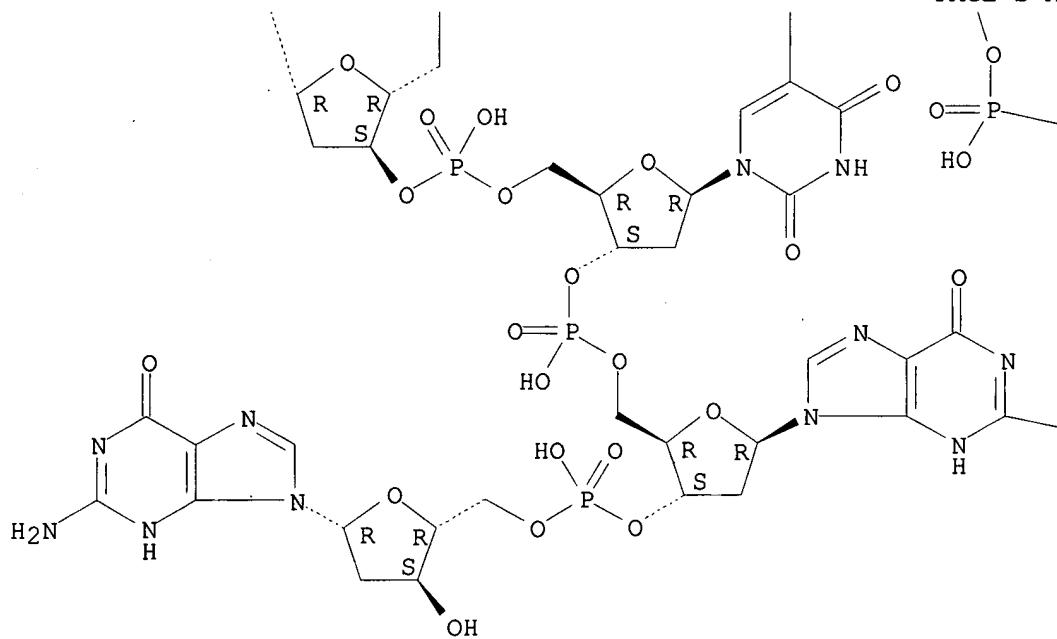
PAGE 1-A



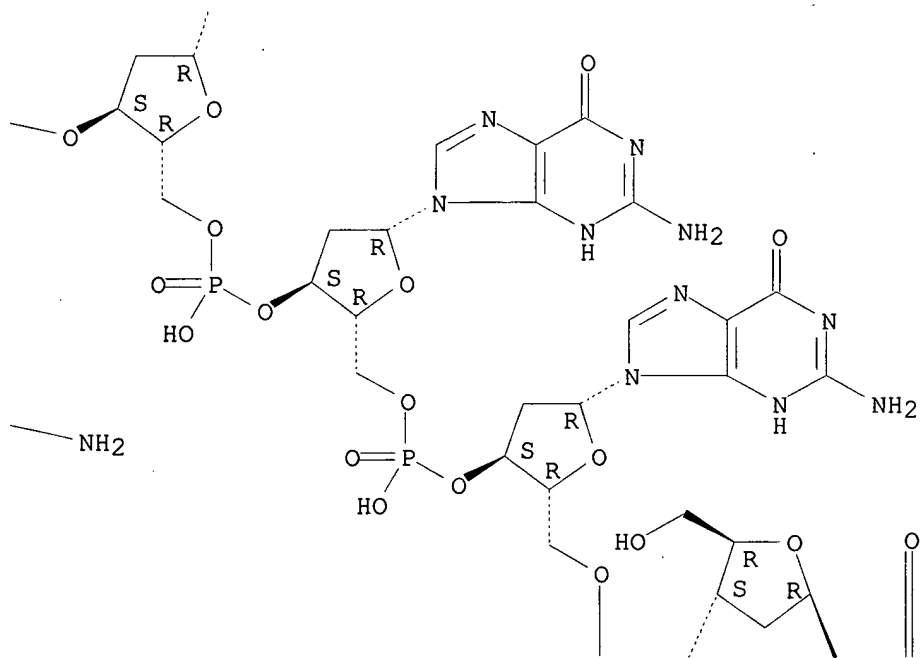
PAGE 1-B

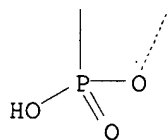


PAGE 2-A

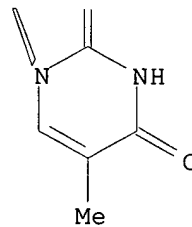


PAGE 2-B





PAGE 3-B



=> d bib abs hitstr 144 47

L44 ANSWER 47 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1989:528223 HCAPLUS

DN 111:128223

TI Isolating DNA segments from cloned libraries without screening by affinity

selection of PCR products

AU Lew, Andrew M.; Kemp, David J.

CS Walter and Eliza Hall Inst. Med. Res., Melbourne, 3050, Australia

SO Nucleic Acids Res. (1989), 17(14), 5859-60

CODEN: NARHAD; ISSN: 0305-1048

DT Journal

LA English

AB The recognition site for a dsDNA binding protein, the yeast regulatory protein GCN4, is only 10 bp. Incorporation of such a sequence in a specific oligonucleotide allows for affinity selection by GCN4 of PCR products. It requires an oligonucleotide commencing at the 5' end with the GCN4 recognition sequence (GGATGACTCA) followed by 20 bases of known sequence and an oligonucleotide derived from the vector, in this case .lambda.. PCR was done with these 2 oligonucleotides and DNA from a .lambda.gt10 cDNA library for 20 cycles at 95.degree. .times. 1 min, 70.degree. .times. 1.5 min. Meanwhile the fusion protein glutathione S-transferase-GCN4 was coated at .apprx.50 .mu.g/mL PBS for 2 h at room temp. or overnight at 4.degree. on polypropylene tubes which were to be used for the next set of PCR. The tubes were washed 3.times. with PBS. The entire PCR reaction mixt. was transferred to these tubes, incubated for 1 h at room temp. and washed 3.times. with PBS. This eliminates .lambda.DNA and single-stranded oligonucleotides. A second set of PCR using fresh reagents was done, for 30 cycles. This produces a visible band on ethidium bromide staining. Gel purifn. of the band and direct sequencing with DMSO confirmed that the DNA was the segment of interest (the full cDNA sequence was already known). Multiple clones of varying length should still be amenable to sequencing en masse from the internal oligonucleotide, although not from the .lambda. oligonucleotide.

IT 122629-07-6

RL: PRP (Properties)

(gene GCN4 protein recognition site, clone **library** DNA segment affinity selection by, after PCR amplification)

RN 122629-07-6 HCAPLUS

CN Guanosine, 2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-

(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-

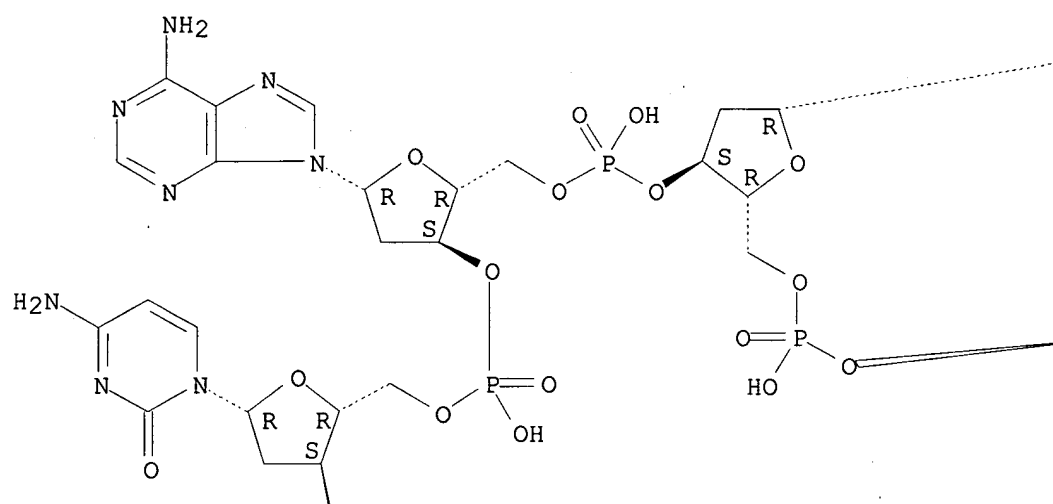
2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-

(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-

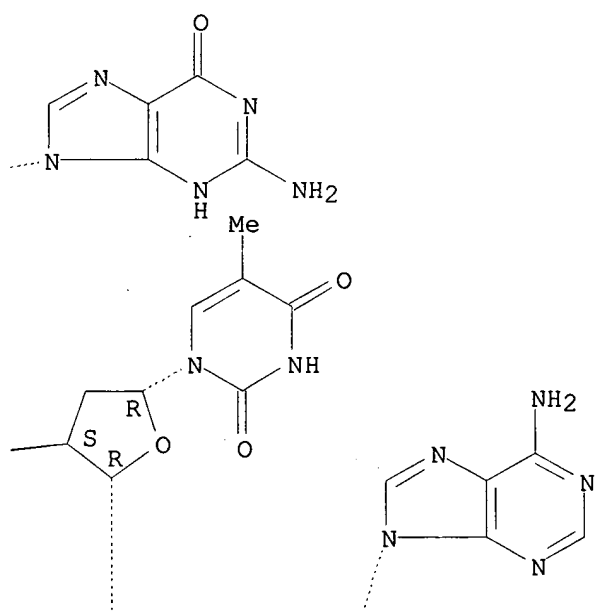
(5'.fwdarw.3')-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

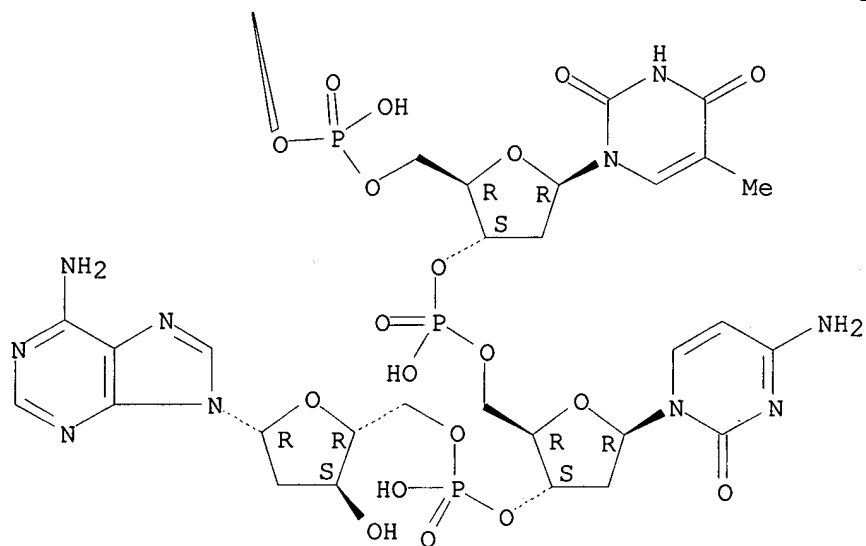
PAGE 1-A



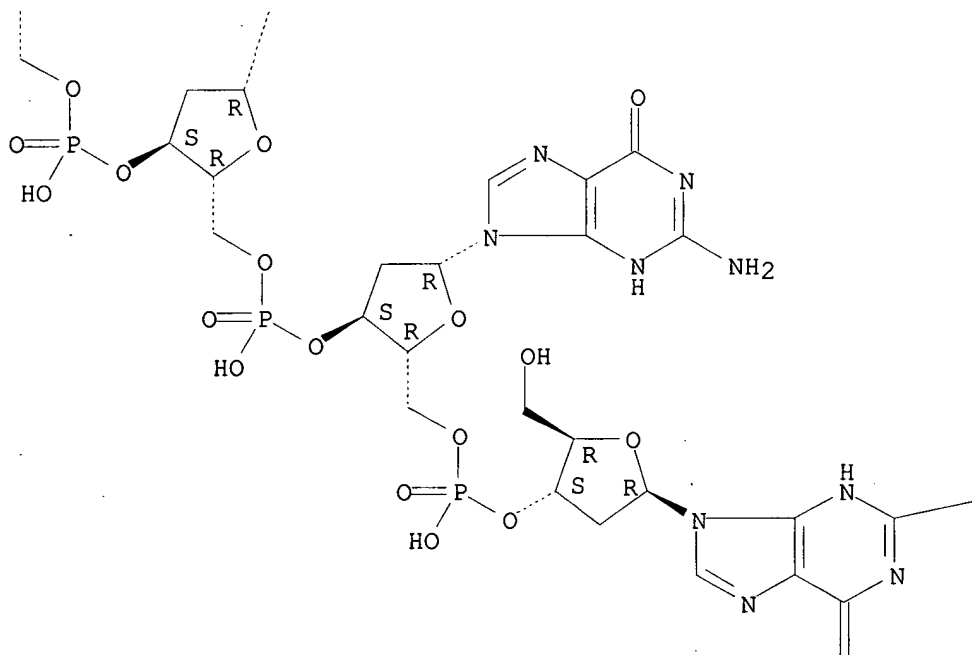
PAGE 1-B



PAGE 2-A



PAGE 2-B



RICIGLINO

08/884873

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PAGE 2-C

—NH<sub>2</sub>

PAGE 3-B

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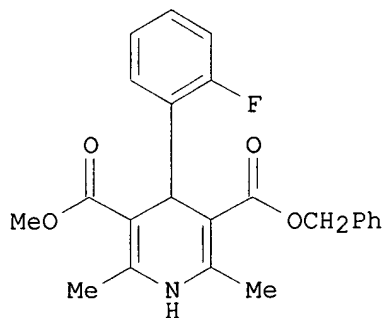
=> d bib abs hitstr 144 48

L44 ANSWER 48 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1983:448454 HCAPLUS  
DN 99:48454  
TI Stretches of alternating poly(T-dG), with the capacity to form Z-DNA, are present in human liver transcripts  
AU Santoro, C.; Costanzo, F.  
CS Eur. Mol. Biol. Lab., Heidelberg, 6900, Fed. Rep. Ger.  
SO FEBS Lett. (1983), 155(1), 69-72  
CODEN: FEBLAL; ISSN: 0014-5793  
DT Journal  
LA English  
AB A cDNA clone consisting of a stretch of poly(T-dG) [29627-68-7] alternating residues, a potential Z-DNA-forming sequence, was identified in a human cDNA **library**. The result of northern blot anal. confirms that this sequence is transcribed into polyadenylated RNA in human liver.

=> d bib abs hitstr 144 26

L44 ANSWER 26 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1997:12505 HCAPLUS  
DN 126:47111  
TI Methods for synthesizing diverse collections of pyridines, pyrimidines,  
1,4-dihydro derivatives thereof, and piperidine derivatives  
IN Gordeev, Mikhail F.; Patel, Dinesh V.  
PA Glaxo Group Limited, UK  
SO PCT Int. Appl., 15 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9633972	A1	19961031	WO 1996-US5956	19960429
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
AU 9659180	A1	19961118	AU 1996-59180	19960529
PRAI US 1995-431083		19950428		
WO 1996-US5956		19960429		
OS CASREACT 126:47111; MARPAT 126:47111				
GI				



I

AB Disclosed are methods for ~~synthesizing very large collections~~  
(combinatorial libraries) of diverse dihydropyridine, dihydropyrimidine,  
pyridine, or pyrimidine compds. on solid supports. Also disclosed are  
methods for identifying and isolating dihydropyridine and  
dihydropyrimidine compds. with useful and diverse activities from such  
collections, including the incorporation of identification tags in such  
collections to facilitate identification of compds. with desired  
properties. Examples cover synthesis of a variety of such compds., with  
many potential biol. activities. For instance, 10 different resin-bound  
enamino esters such as R-NHC(Me):CHCO<sub>2</sub>CH<sub>2</sub>Ph [R = Rink or TentaGel RAM

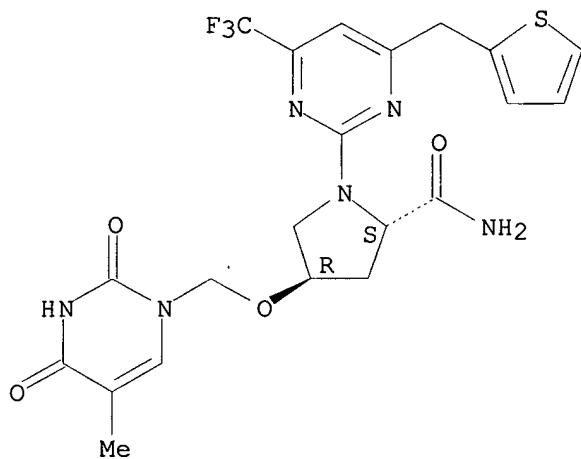
Searched by John Dantzman 308-4488

resin] were prepd. sep. by condensation of amine resins with 10 .beta.-keto esters such as MeCOCH<sub>2</sub>CO<sub>2</sub>Ph. These were pooled, split into 10 portions, and each portion was cyclocondensed with MeCOCH<sub>2</sub>CO<sub>2</sub>Me and 1 of 10 arom. aldehydes such as o-fluorobenzaldehyde. Cleavage of the resins with CF<sub>3</sub>CO<sub>2</sub>H in CH<sub>2</sub>Cl<sub>2</sub> gave 10 pools of dihydropyridine derivs., which were tested for calcium blockade activity using a cortex membrane binding assay. The assay indicated greatest activity for o-nitro- and o-fluorobenzaldehyde derivs., which were then deconvoluted by parallel synthesis of individual pool members. Preferred compds. showing IC<sub>50</sub> <100 nM included the known agent nifedipine, its Et ester analog, and the fluoro compd. I. A variety of substituted nicotinic acids, pyrido[2,3-d]pyrimidines, and amino acid-contg. 2-aminopyrimidines were prepd.

IT **184681-96-7P 184682-16-4P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of **libraries** of pyridines, pyrimidines, their 1,4-dihydro derivs., and piperidines)

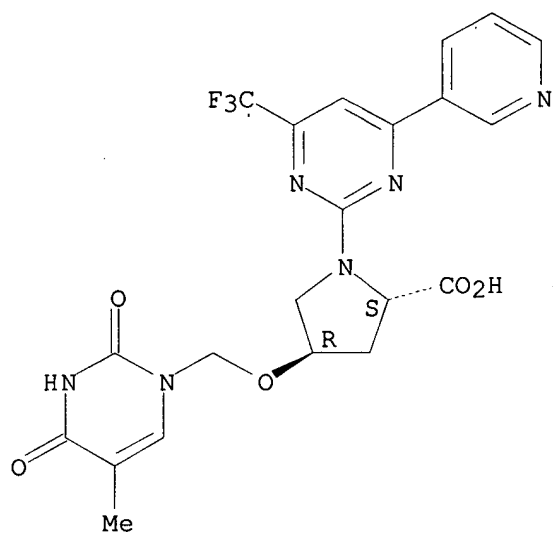
RN 184681-96-7 HCAPLUS  
CN 2-Pyrrolidinecarboxamide, 4-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)methoxy]-1-[4-(2-thienylmethyl)-6-(trifluoromethyl)-2-pyrimidinyl]-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 184682-16-4 HCAPLUS  
CN L-Proline, (4R)-4-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)methoxy]-1-[4-(3-pyridinyl)-6-(trifluoromethyl)-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 144 17

L44 ANSWER 17 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1998:16464 HCAPLUS

DN 128:18388

TI Strategies for Rapid Deconvolution of Combinatorial Libraries:

Comparative

Evaluation Using a Model System

AU Konings, Danielle A. M.; Wyatt, Jacqueline R.; Ecker, David J.; Freier, Susan M.

CS ISIS Pharmaceuticals, Carlsbad, CA, 92008, USA

SO J. Med. Chem. (1997), 40(26), 4386-4395

CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

AB Synthesis and testing of complex mixts. maximize the no. of compds. that can be prepd. and tested in a combinatorial library. When mixts. of compds. are screened, however, the identity of the compd.(s) selected may depend on the deconvolution procedure employed. Previously, we developed a model system for evaluation of deconvolution procedures and used it to compare pooling strategies for iterative and noniterative deconvolution. We have now extended the model studies to include simulations of procedures with overlapping subsets such as subtractive pooling, bogus coin pooling, and orthogonal pooling. These strategies required

synthesis

and testing of fewer subsets than did the more traditional nonoverlapping iterative strategies. The compds. identified using simulations of these strategies, however, were not the most active compds. in the library and were substantially less active than those identified by simulations of more traditional strategies.

IT 199439-06-0

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL

(Biological

study); USES (Uses)

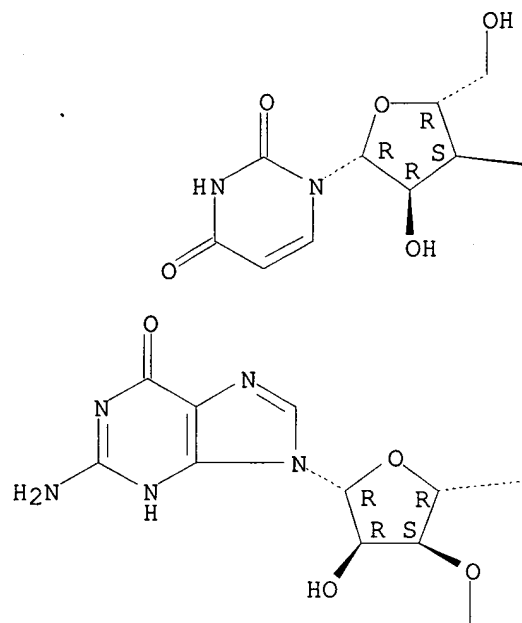
(four strategies for rapid deconvolution of **combinatorial libraries**)

RN 199439-06-0 HCAPLUS

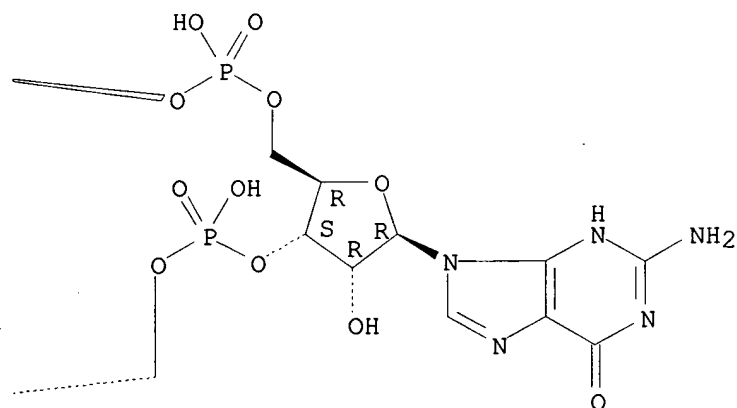
CN Adenosine, uridylyl-(3'.fwdarw.5')-guanylyl-(3'.fwdarw.5')-guanylyl-(3'.fwdarw.5')-guanylyl-(3'.fwdarw.5')-cytidylyl-(3'.fwdarw.5')- (9CI)  
(CA INDEX NAME)

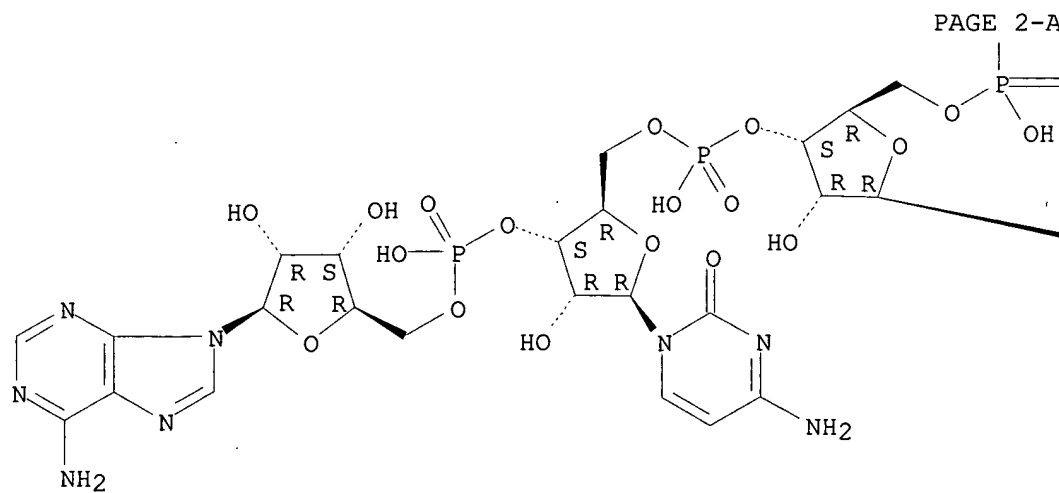
Absolute stereochemistry.

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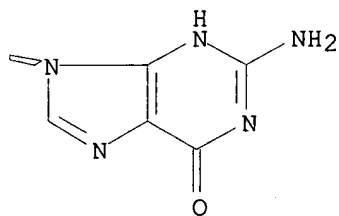
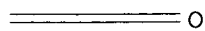


PAGE 1-B





PAGE 2-B



=> d bib abs hitstr 144 31

L44 ANSWER 31 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1996:407857 HCAPLUS  
DN 125:184872  
TI Novel bradykinin receptor antagonists from a structurally directed  
non-peptide combinatorial library  
AU Chakravarty, Sarvajit; Mavunkel, Babu J.; Goehring, R. Richard; Kyle,  
Donald J.  
CS Scios Nova Inc., 820 West Maude Avenue, Sunnyvale, CA, 94086, USA  
SO Immunopharmacology (1996), 33(1-3, Papers presented at KININ '95,  
Fourteenth International Symposium on Bradykinin and Related Kinins,  
1995), 61-67  
CODEN: IMMUDP; ISSN: 0162-3109  
DT Journal  
LA English  
GI

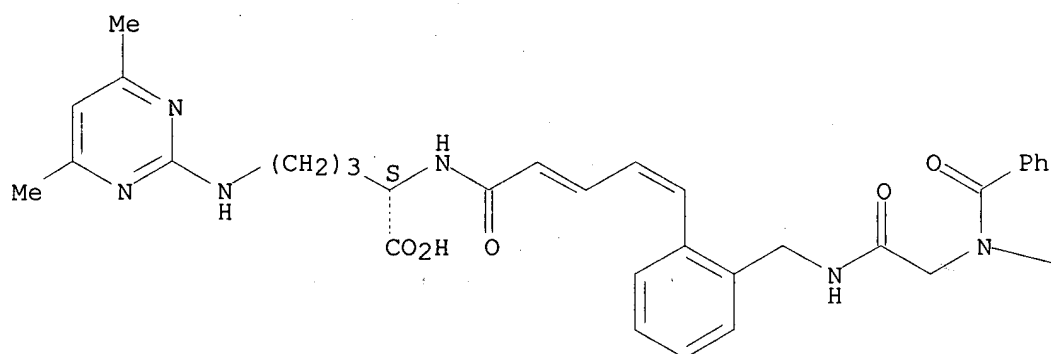
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB A series of non-peptide combinatorial libraries were prepd. and tested as  
bradykinin receptor antagonists; there were 146 compds. in all with a  
generic structure of D-Arg-Arg-X-Y-Arg where X and Y were selected from  
pools of carbocyclic and heterocyclic building blocks. Among these  
latter  
building blocks, 4 were linear aminoalkanoic acids, 4 were cinnamic  
acids,  
3 were carbolines, 3 were phenanthridinones, and 5 were spirocyclics.  
Receptor binding assays showed I and II to be promising new leads.  
IT **180985-18-6P**  
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic  
preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
(Preparation); USES (Uses)  
(novel bradykinin receptor antagonists from a structurally directed  
non-peptide **combinatorial library**)  
RN 180985-18-6 HCAPLUS  
CN L-Argininamide, D-arginyl-N-[3-[benzoyl[2-[[[2-[5-[[1-carboxy-4-[(4,6-  
dimethyl-2-pyrimidinyl)amino]butyl]amino]-5-oxo-1,3-  
pentadienyl]phenyl]methyl]amino]-2-oxoethyl]amino]phenyl]-, (S)- (9CI)  
(CA INDEX NAME)

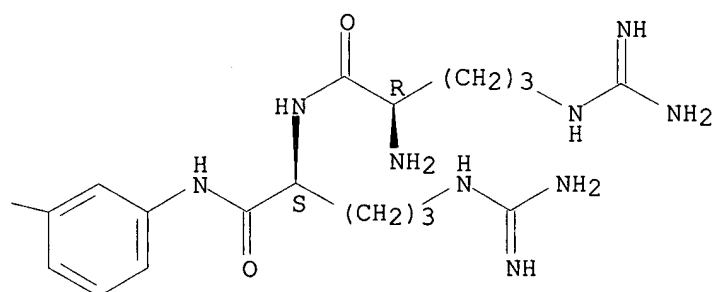
Absolute stereochemistry.  
Double bond geometry unknown.



PAGE 1-A



PAGE 1-B



=> d bib abs hitstr 144 25

L44 ANSWER 25 OF 48 HCAPLUS COPYRIGHT 2000 ACS

AN 1997:134075 HCAPLUS

DN 126:246264

TI Spectrometrically monitored selection experiments: quantitative laser desorption mass spectrometry of small chemical libraries

AU Berlin, Kurt; Jain, Rishi K.; Tetzlaff, Charles; Steinbeck, Christoph; Richert, Clemens

CS Dep. Chem., Tufts Univ., Medford, MA, 02155, USA

SO Chem. Biol. (1997), 4(1), 63-77

CODEN: CBOLE2; ISSN: 1074-5521

PB Current Biology

DT Journal

LA English

AB Selection expts. involving chem. libraries are routinely used in the pharmaceutical industry for finding and optimizing lead compds. In principle, almost any process involving a binding event or a reaction could be probed systematically with chem. libraries prepd. by combinatorial synthesis. Traditionally, however, the vast majority of library members cannot be monitored during the selection, making a systematic correlation of structure and activity difficult. To interpret selection expts. on the level of all library components, monitoring technologies are required that give a unique and quant. spectroscopic signal for every compd. in a mixt. Quant. matrix-assisted laser desorption mass spectrometry of libraries of porphyrins and peptide-DNA hybrids consisting of 2-35 compds. is described. Porphyrin libraries

were subjected to in vitro selections for liposome incorporation and binding to

a protein pocket. It was shown that mesohydroxyphenyl substituted porphyrins, known high activity photosensitizers of tumors, are preferentially incorporated in liposome membranes. A mixt. of

peptide-DNA

hybrids was assayed for the nuclear stability of its components. Small libraries of non-isobaric compds. can be exhaustively or

near-exhaustively

monitored by mass spectrometry. Monitored selection expts. can yield detailed structure-activity maps in a single expt., speeding up drug discovery and the probing of biochem. relevant recognition events. It is proposed that monitored assays for target binding, membrane partitioning, and biostability could be run in parallel, to select drug candidates combining several favorable properties in 'multidimensional' selection expts.

IT 188726-87-6

RL: BPR (Biological process); PRP (Properties); BIOL (Biological study); PROC (Process)

(spectrometrically monitored selection expts. using quant. laser desorption mass spectrometry of small chem. **libraries** applied to porphyrins and peptide-DNA hybrids)

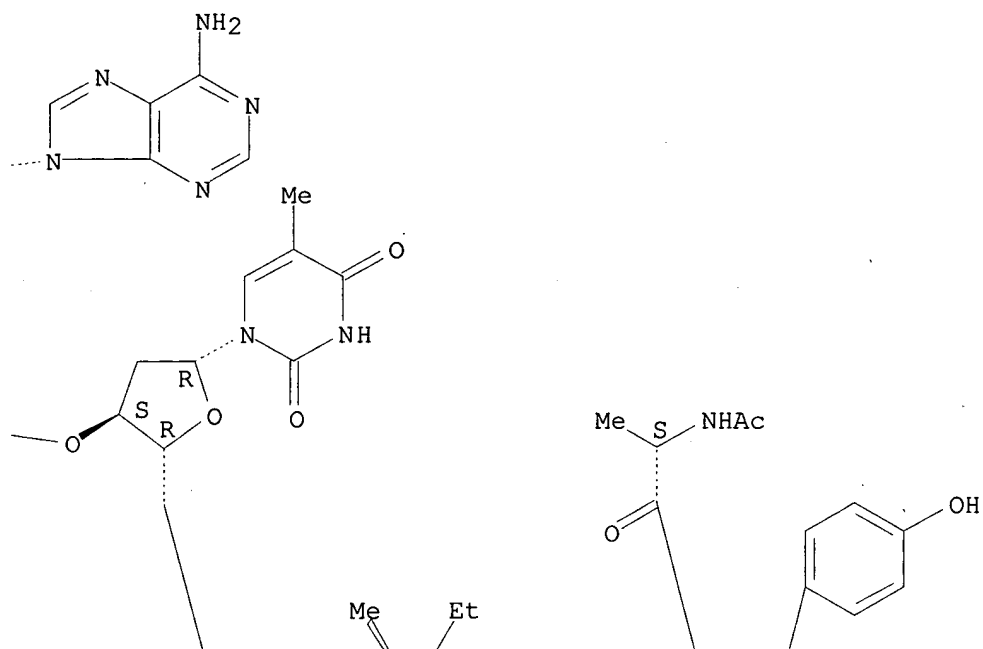
RN 188726-87-6 HCAPLUS

CN Cytidine, 5'-[(N-acetyl-L-alanyl-L-tyrosyl-L-glutaminy-L-isoleucyl-L-phenylalanyl)amino]-5'-deoxythymidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

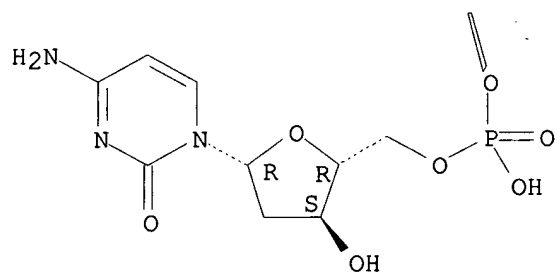
Searched by John Dantzman 308-4488



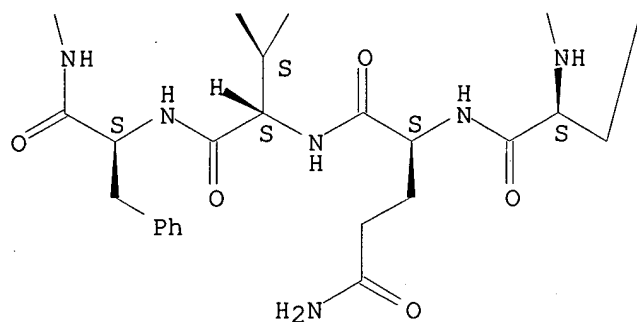
PAGE 1-B



PAGE 2-A



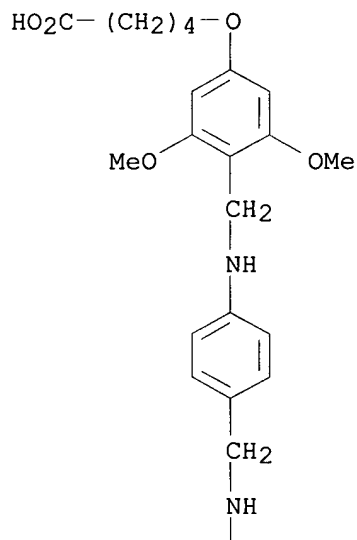
PAGE 2-B



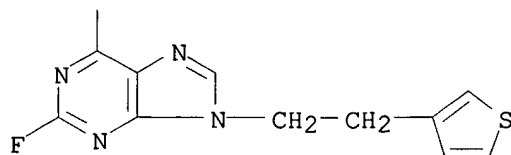
=> d bib abs hitstr 144 24

L44 ANSWER 24 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1997:142821 HCAPLUS  
DN 126:251019  
TI Combinatorial synthesis of 2,9-substituted purines  
AU Gray, Nathanael S.; Kwon, Soojin; Schultz, Peter G.  
CS Howard Hughes Medical Institute, Department of Chemistry, University of California, Berkeley, CA, 94720, USA  
SO Tetrahedron Lett. (1997), 38(7), 1161-1164  
CODEN: TELEAY; ISSN: 0040-4039  
PB Elsevier  
DT Journal  
LA English  
AB A method for the combinatorial synthesis of 2,9-disubstituted purines using a Mitsunobu reaction to alkylate the N-9 position and an amination reaction to install amines at the C-2 position has been developed.  
IT 188644-38-4DP, resin-bound 188644-39-5DP, resin-bound  
188644-40-8DP, resin-bound  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(combinatorial synthesis of 2,9-diaminopurines)  
RN 188644-38-4 HCAPLUS  
CN Pentanoic acid, 5-[4-[[[4-[[[2-fluoro-9-[2-(3-thienyl)ethyl]-9H-purin-6-yl]amino]methyl]phenyl]amino]methyl]-3,5-dimethoxyphenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

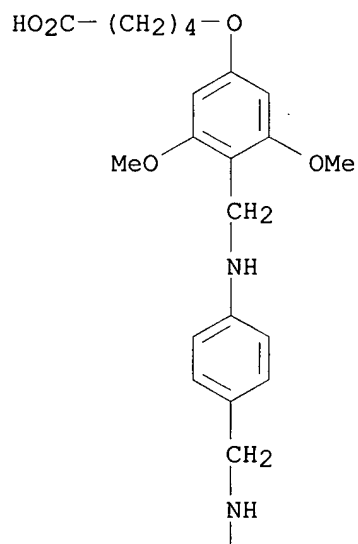


RN 188644-39-5 HCAPLUS

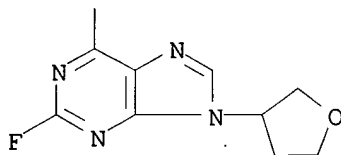
CN Pentanoic acid,

5-[4-[[[4-[[[2-fluoro-9-(tetrahydro-3-furanyl)-9H-purin-6-yl]amino]methyl]phenyl]amino]methyl]-3,5-dimethoxyphenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



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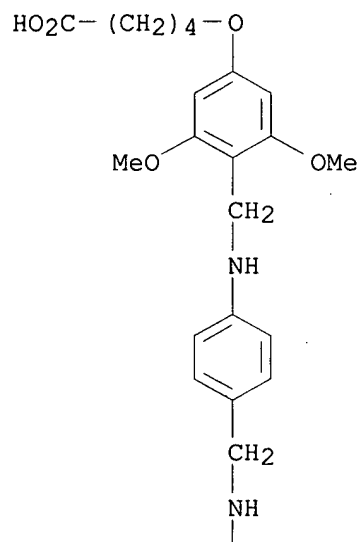


RN 188644-40-8 HCAPLUS

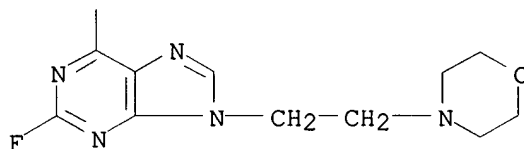
CN Pentanoic acid,

5-[4-[[[4-[[[2-fluoro-9-[2-(4-morpholinyl)ethyl]-9H-purin-6-yl]amino]methyl]phenyl]amino]methyl]-3,5-dimethoxyphenoxy]- (9CI) (CA INDEX NAME)

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IT 188644-36-2DP, resin-bound 188644-37-3DP, resin-bound  
 188644-41-9DP, resin-bound 188644-42-0DP, resin-bound  
 188644-43-1DP, resin-bound 188644-47-5P  
 188644-48-6P 188644-49-7P 188644-50-0P  
 188644-51-1P 188644-55-5P 188644-56-6P  
 188644-57-7P 188644-58-8P 188644-59-9P  
 188644-65-7P 188644-66-8P 188644-67-9P  
 188644-68-0P 188644-69-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (combinatorial synthesis of 2,9-diaminopurines)

RN 188644-36-2 HCAPLUS

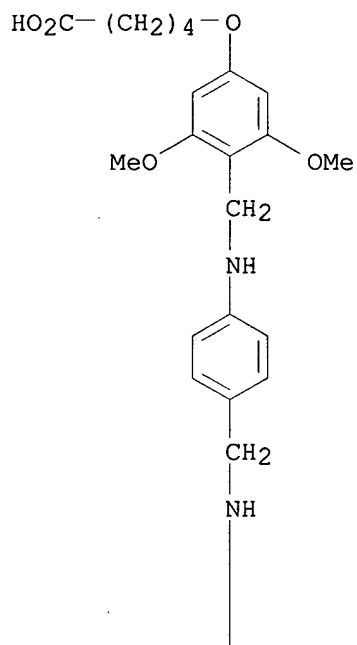
Searched by John Dantzman

308-4488

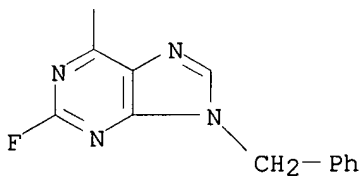


CN Pentanoic acid, 5-[4-[[[4-[[[2-fluoro-9-(phenylmethyl)-9H-purin-6-yl]amino]methyl]phenyl]amino]methyl]-3,5-dimethoxyphenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



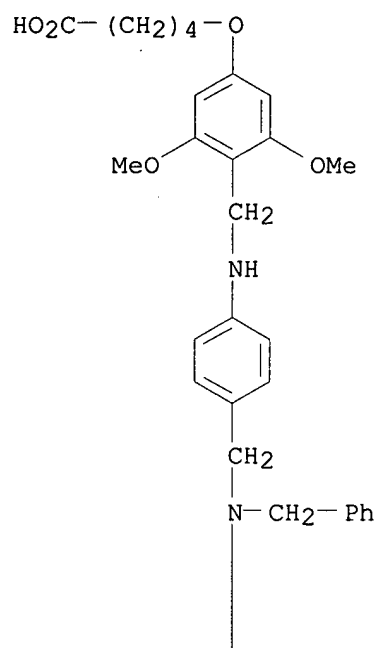
PAGE 2-A



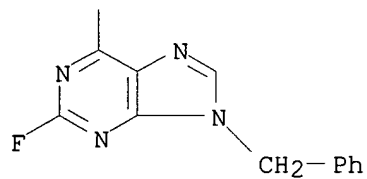
RN 188644-37-3 HCAPLUS

CN Pentanoic acid, 5-[4-[[[4-[[[2-fluoro-9-(phenylmethyl)-9H-purin-6-yl] (phenylmethyl)amino]methyl]phenyl]amino]methyl]-3,5-dimethoxyphenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

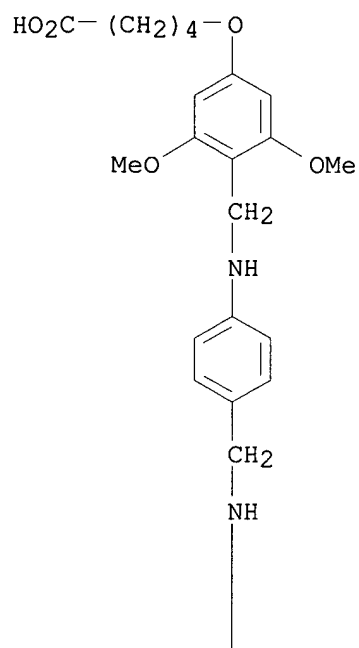


PAGE 2-A

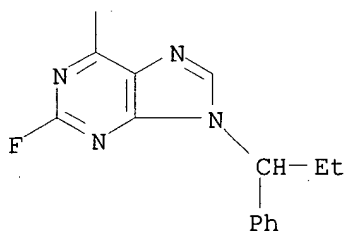


RN 188644-41-9 HCAPLUS  
CN Pentanoic acid, 5-[4-[[[4-[[[2-fluoro-9-(1-phenylpropyl)-9H-purin-6-yl]amino]methyl]phenyl]amino]methyl]-3,5-dimethoxyphenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

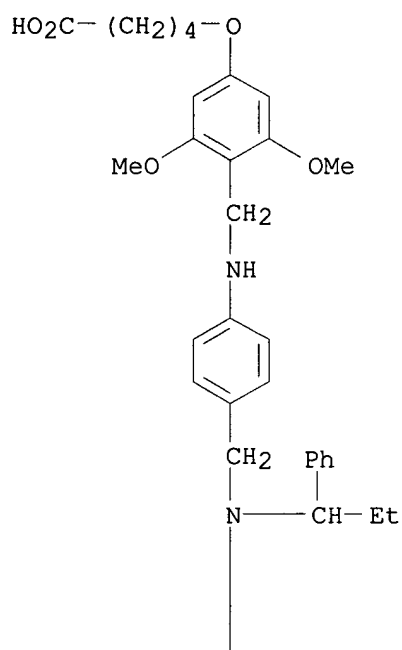


RN 188644-42-0 HCAPLUS

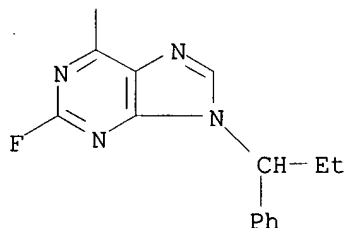
CN Pentanoic acid,

5-[4-[[[4-[[[2-fluoro-9-(1-phenylpropyl)-9H-purin-6-yl](1-phenylpropyl)amino]methyl]phenyl]amino]methyl]-3,5-dimethoxyphenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A

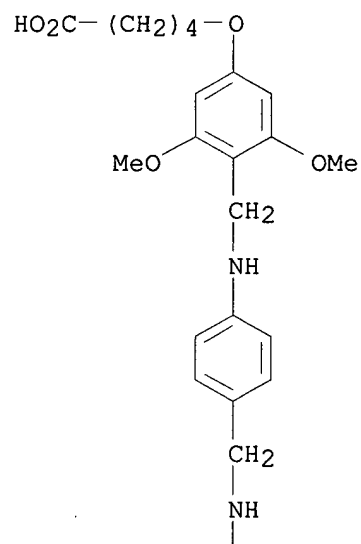


PAGE 2-A

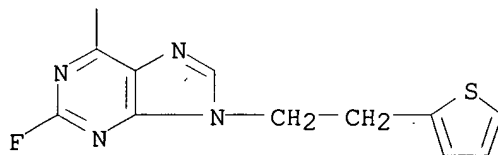


RN 188644-43-1 HCAPLUS  
 CN Pentanoic acid, 5-[4-[[[4-[[[2-fluoro-9-[2-(2-thienyl)ethyl]-9H-purin-6-yl]amino]methyl]phenyl]amino]methyl]-3,5-dimethoxyphenoxy]- (9CI) (CA INDEX NAME)

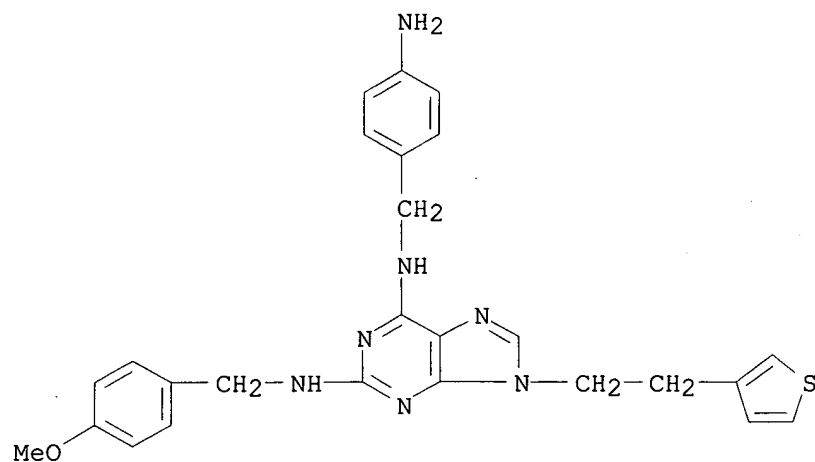
PAGE 1-A



PAGE 2-A

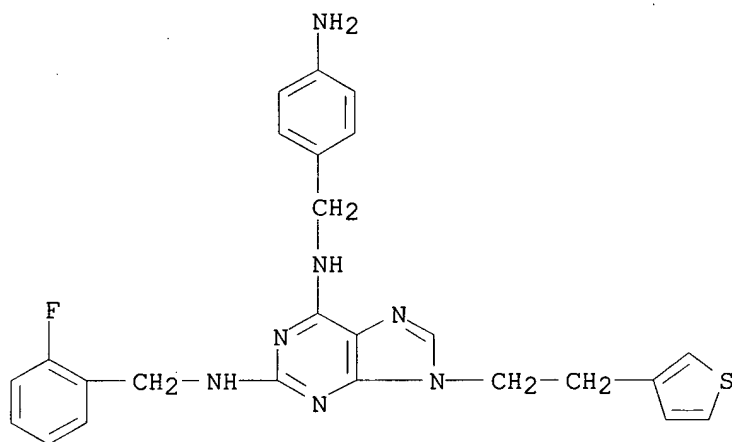


RN 188644-47-5 HCAPLUS  
CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-[(4-methoxyphenyl)methyl]-9-[2-(3-thienyl)ethyl]- (9CI) (CA INDEX NAME)



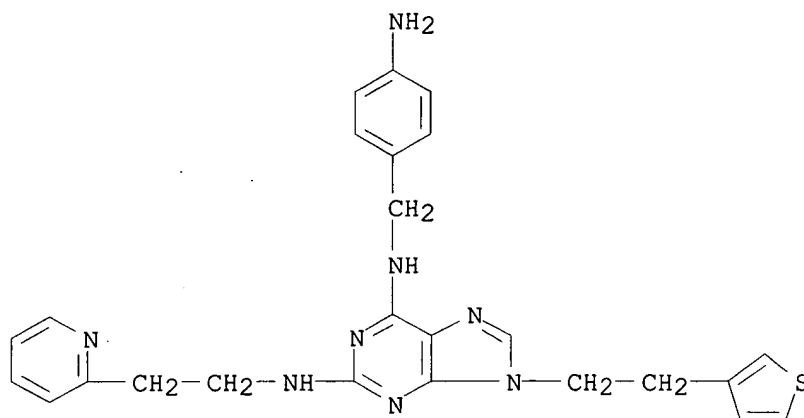
RN 188644-48-6 HCAPLUS

CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-[(2-fluorophenyl)methyl]-9-[2-(3-thienyl)ethyl]- (9CI) (CA INDEX NAME)



RN 188644-49-7 HCAPLUS

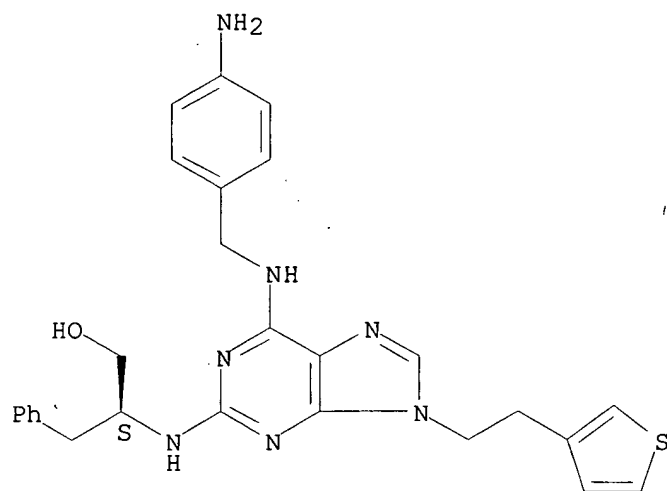
CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-[2-(2-pyridinyl)ethyl]-9-[2-(3-thienyl)ethyl]- (9CI) (CA INDEX NAME)



RN 188644-50-0 HCAPLUS

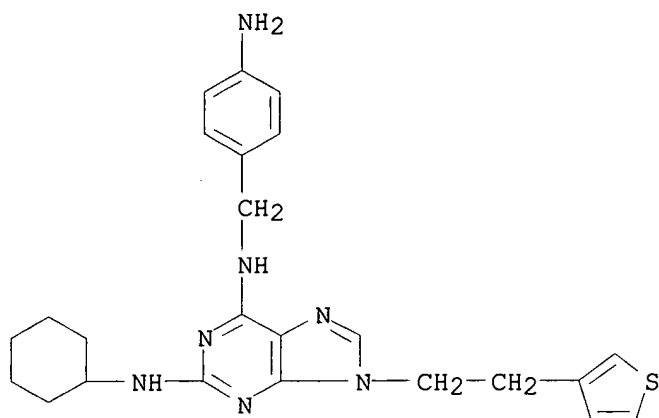
CN Benzenepropanol, .beta.-[[6-[[[(4-aminophenyl)methyl]amino]-9-[2-(3-thienyl)ethyl]-9H-purin-2-yl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



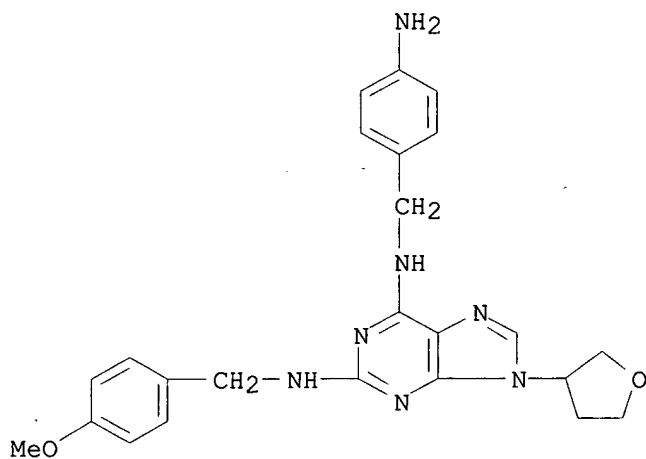
RN 188644-51-1 HCAPLUS

CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-cyclohexyl-9-[2-(3-thienyl)ethyl]- (9CI) (CA INDEX NAME)



RN 188644-55-5 HCAPLUS

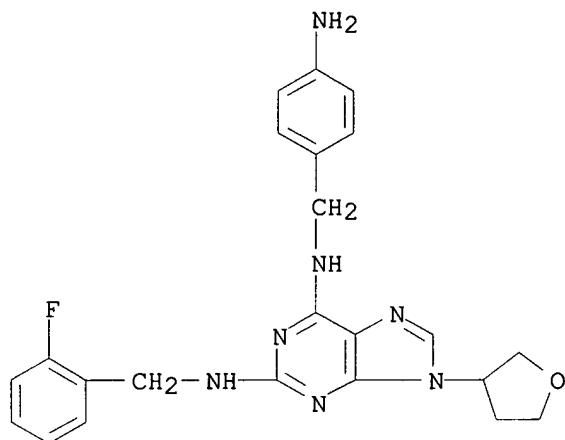
CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-[(4-methoxyphenyl)methyl]-9-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)



RN 188644-56-6 HCAPLUS

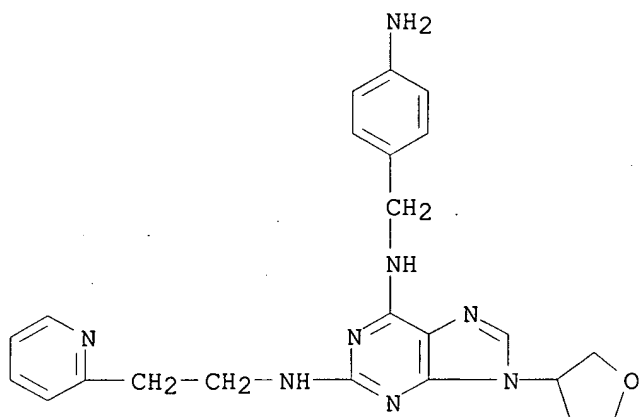
CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-[(2-fluorophenyl)methyl]-9-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)





RN 188644-57-7 HCAPLUS

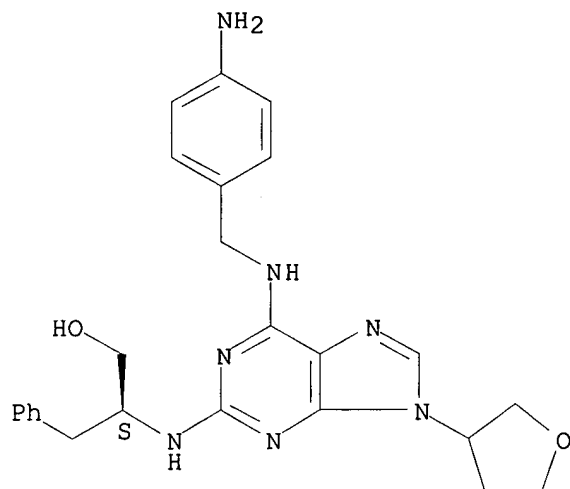
CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-[2-(2-pyridinyl)ethyl]-9-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)



RN 188644-58-8 HCAPLUS

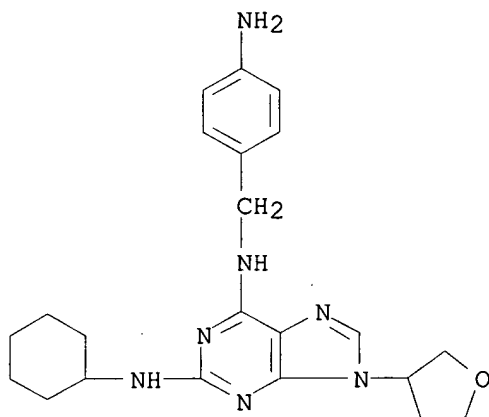
CN Benzenepropanol,  
.beta.-[[6-[[[(4-aminophenyl)methyl]amino]-9-(tetrahydro-3-furanyl)-9H-purin-2-yl]amino]-, [3(S)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



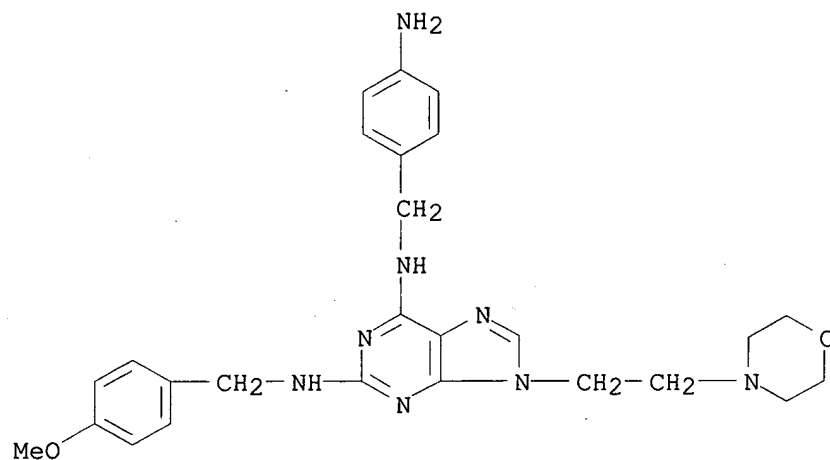
RN 188644-59-9 HCAPLUS

CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-cyclohexyl-9-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)



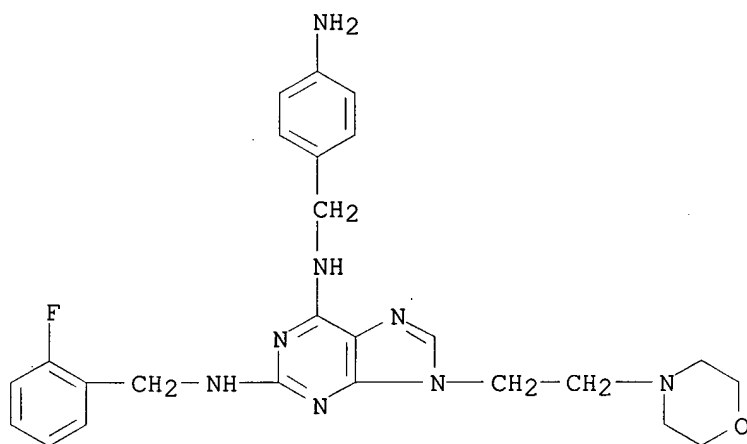
RN 188644-65-7 HCAPLUS

CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-[(4-methoxyphenyl)methyl]-9-[2-(4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)



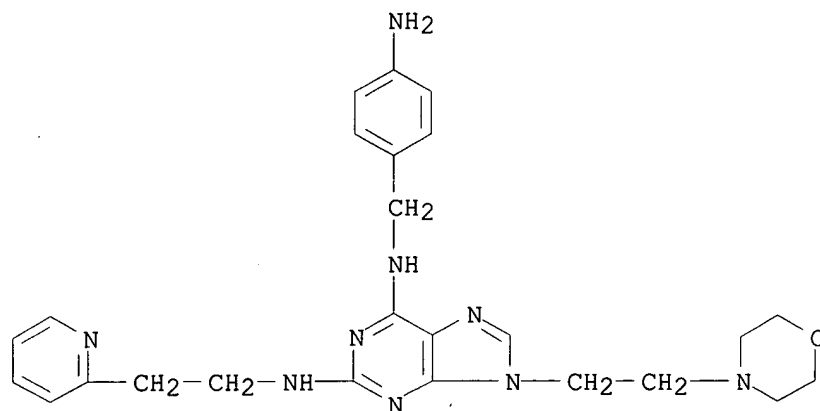
RN 188644-66-8 HCAPLUS

CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-[(2-fluorophenyl)methyl]-9-[2-(4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)



RN 188644-67-9 HCAPLUS

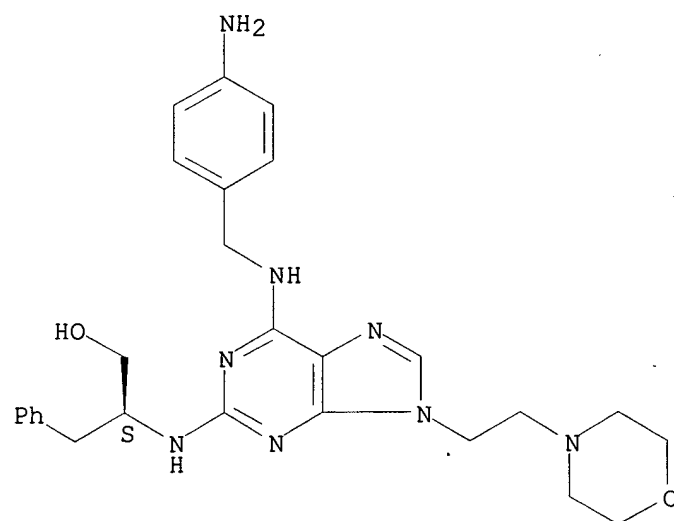
CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-9-[2-(4-morpholinyl)ethyl]-N2-[2-(2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



RN 188644-68-0 HCAPLUS

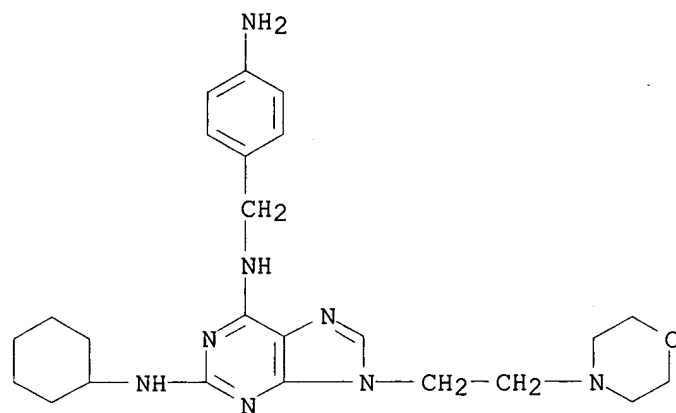
CN Benzenepropanol, .beta.-[[6-[[[(4-aminophenyl)methyl]amino]-9-[2-(4-morpholinyl)ethyl]-9H-purin-2-yl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



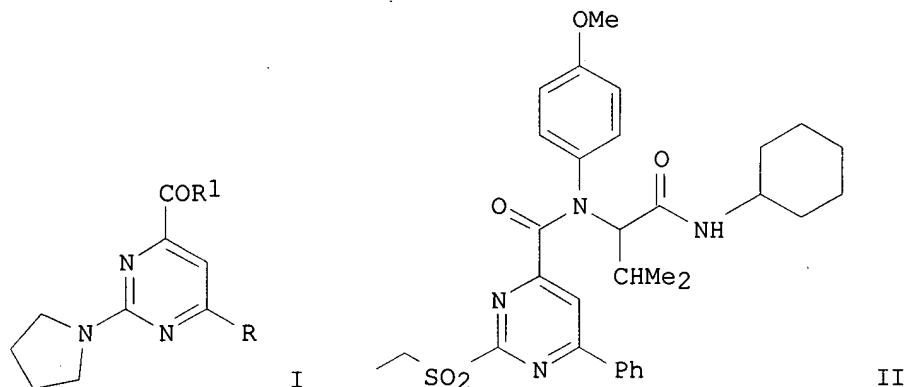
RN 188644-69-1 HCAPLUS

CN 9H-Purine-2,6-diamine, N6-[(4-aminophenyl)methyl]-N2-cyclohexyl-9-[2-(4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)



=> d bib abs hitstr 144 23

L44 ANSWER 23 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1997:151137 HCAPLUS  
DN 126:251130  
TI A novel and efficient approach for the combinatorial synthesis of  
structurally diverse pyrimidines on solid support  
AU Obrecht, Daniel; Abrecht, Christine; Grieder, Alfred; Villalgorido, Jose  
M.  
CS Hoffmann-La Roche A.-G., Basel, CH-4070, Switz.  
SO Helv. Chim. Acta (1997), 80(1), 65-72  
CODEN: HCACAV; ISSN: 0018-019X  
PB Verlag Helvetica Chimica Acta  
DT Journal  
LA English  
OS CASREACT 126:251130  
GI



AB A versatile approach for the synthesis of 2,4,6-trisubstituted pyrimidines on solid support is described. Thus, polymer-bound thiouronium chloride reacted in high yield in a cyclocondensation reaction with  $\text{RCOC.tplbond.CCO}_2\text{CMe}_3$  ( $\text{R} = \text{Ph}$ , 2-furyl, 5-benzo[1,3]dioxolyl) to form, after ester cleavage, polymer-bound pyrimidinecarboxylates which were cleaved by oxidn. with MCPBA and pyrrolidine to give 85-90% pyrrolidinylpyrimidinecarboxylates I ( $\text{R}_1 = \text{OH}$ ) in 96-99% purities. Alternatively, Ugi 4-component condensation gave Ugi products such as I

[R = Ph;  $\text{R}_1 = \text{NR}_2\text{C}(\text{CHMe}_2)\text{CONHR}_3$ ;  $\text{R}_2 = 4\text{-MeOC}_6\text{H}_4$ , Pr, cyclohexyl;  $\text{R}_3 = \text{cyclohexyl}$ ] in 65-87% yields. Multi-directional cleavage reaction of polymer-bound sulfone II with different nucleophiles resulted in the clean

formation of pyrimidine-4-carboxamides. This strategy combines efficiently solid-phase chem. which a multicomponent reaction and a multi-directional cleavage step to form highly diverse pyrimidines in a

Searched by John Dantzman 308-4488

parallel array.

IT 188633-51-4P 188633-52-5P 188633-53-6P  
188633-54-7P 188633-55-8P 188633-57-0P  
188633-59-2P 188633-61-6P 188633-63-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

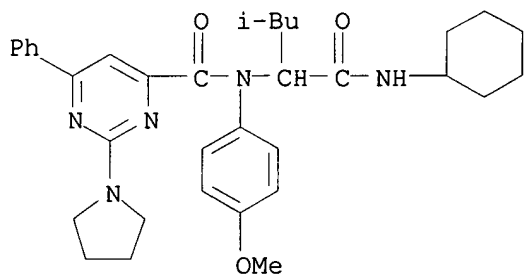
(combinatorial synthesis of pyrimidines on solid support)

RN 188633-51-4 HCAPLUS

CN 4-Pyrimidinecarboxamide,

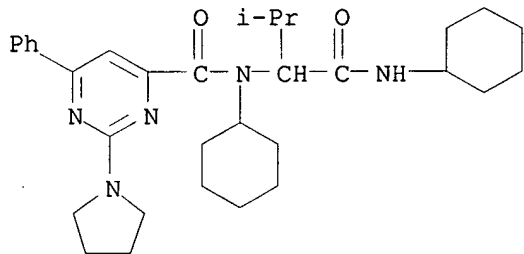
N-[1-[(cyclohexylamino)carbonyl]-3-methylbutyl]-N-

(4-methoxyphenyl)-6-phenyl-2-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



RN 188633-52-5 HCAPLUS

CN 4-Pyrimidinecarboxamide, N-cyclohexyl-N-[1-[(cyclohexylamino)carbonyl]-2-methylpropyl]-6-phenyl-2-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)

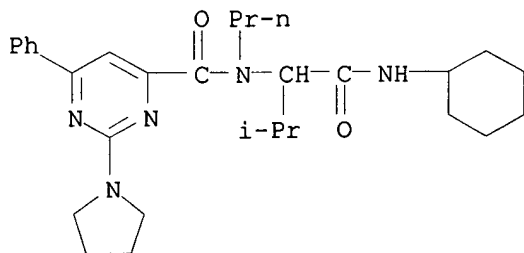


RN 188633-53-6 HCAPLUS

CN 4-Pyrimidinecarboxamide,

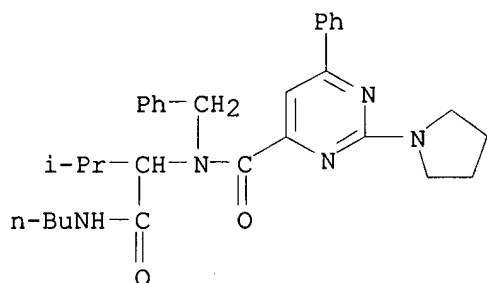
N-[1-[(cyclohexylamino)carbonyl]-2-methylpropyl]-

6-phenyl-N-propyl-2-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



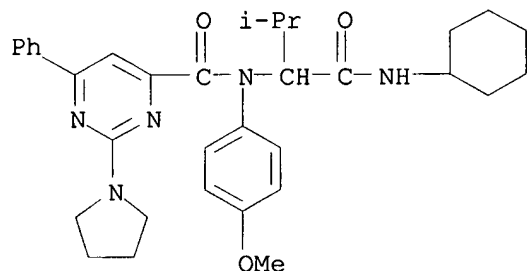
RN 188633-54-7 HCAPLUS

CN 4-Pyrimidinecarboxamide, N-[1-[(butylamino)carbonyl]-2-methylpropyl]-6-phenyl-N-(phenylmethyl)-2-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



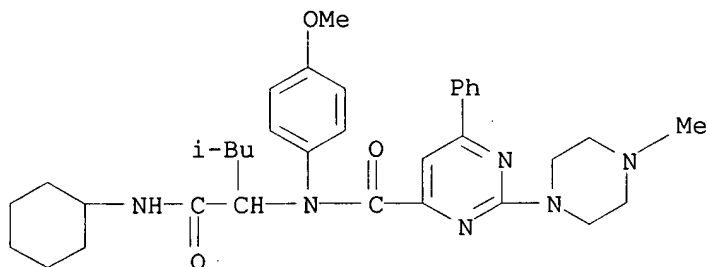
RN 188633-55-8 HCAPLUS

CN 4-Pyrimidinecarboxamide, N-[1-[(cyclohexylamino)carbonyl]-2-methylpropyl]-N-(4-methoxyphenyl)-6-phenyl-2-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



RN 188633-57-0 HCAPLUS

CN 4-Pyrimidinecarboxamide, N-[1-[(cyclohexylamino)carbonyl]-3-methylbutyl]-N-(4-methoxyphenyl)-2-(4-methyl-1-piperazinyl)-6-phenyl- (9CI) (CA INDEX NAME)



RN 188633-59-2 HCAPLUS

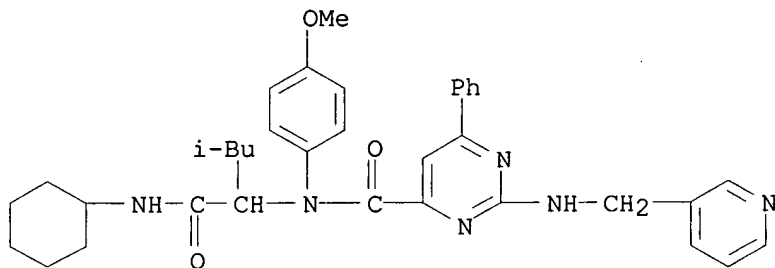
CN 4-Pyrimidinecarboxamide, N-[1-[(cyclohexylamino)carbonyl]-3-methylbutyl]-N-

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308-4488



(4-methoxyphenyl)-6-phenyl-2-[(3-pyridinylmethyl)amino]- (9CI) (CA INDEX NAME)

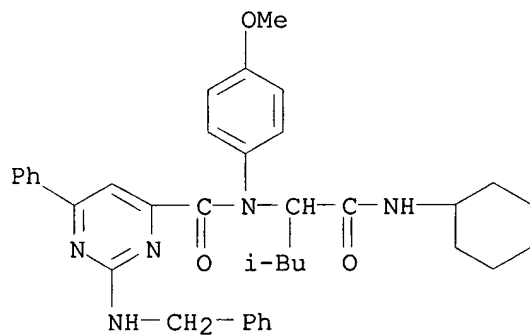


RN 188633-61-6 HCAPLUS

CN 4-Pyrimidinecarboxamide,

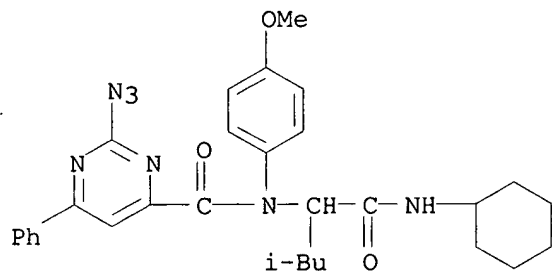
N-[1-[(cyclohexylamino)carbonyl]-3-methylbutyl]-N-

(4-methoxyphenyl)-6-phenyl-2-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)



RN 188633-63-8 HCAPLUS

CN 4-Pyrimidinecarboxamide, 2-azido-N-[1-[(cyclohexylamino)carbonyl]-3-methylbutyl]-N-(4-methoxyphenyl)-6-phenyl- (9CI) (CA INDEX NAME)



=> d bib abs hitstr 144 11

L44 ANSWER 11 OF 48 HCAPLUS COPYRIGHT 2000 ACS  
AN 1998:719165 HCAPLUS  
DN 129:331055  
TI Improved preparation of oligomeric peptide nucleic acid (PNA)  
combinatorial libraries  
IN Cook, Phillip Dan; Kiely, John; Sprankle, Kelly  
PA Isis Pharmaceuticals Inc, USA  
SO U.S., 33 pp. Cont.-in-part of U.S. 5,539,083.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5831014	A	19981103	US 1996-693144	19960813
	US 5539083	A	19960723	US 1994-200742	19940223
	WO 9523163	A1	19950831	WO 1995-US2182	19950222
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	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	JP 11209393	A2	19990803	JP 1998-322576	19950222
PRAI	US 1994-200742		19940223		
	WO 1995-US2182		19950222		
	JP 1995-522421		19950222		
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB New sub-monomer synthetic methods for the prepn. of peptide nucleic acid  
oligomeric structures are disclosed that provide for the synthesis of  
both

predefined sequence peptide nucleic acid oligomers as well as random  
sequence peptide nucleic acid oligomers. Further these methods also  
provide for the incorporation of peptide nucleic acid units or strings of  
such units with amino acids or strings of amino acids in chimeric peptide  
nucleic acid-amino acid compds. Further disclosed are methods of making  
random libraries of peptide nucleic acids using the fully preformed  
monomers. Thus, a combinatorial library of chimeric peptide nucleic acid  
oligomers was prepd. using protected 2-oxomorphilone building blocks

I-IV,  
which involved coupling of IV to a MBHA resin, Mitsunobu reaction of the  
resulting resin-bound hydroxy adduct with (Boc)2NH using Ph3P and di-Et  
azodicarboxylate, random coupling of the resulting resin-bound peptide  
nucleic acid monomer with a mixt. of I, II, III, and IV followed by  
Mitsunobu reaction for converting the terminal hydroxy group to the  
terminal amine moieties, repeating the latter procedure for extension of

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of backbone and addn. of further nucleoside bases to complete the oligomer the desired length, addn. of a peptide to the peptide nucleic acid unit using std. solid phase Merrifield peptide synthesis, and cleavage of peptide nucleic acid oligomers from the resin.

IT 172729-50-9P 172729-69-0P 172729-73-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(improved prepn. of oligomeric peptide nucleic acid (PNA)  
**combinatorial libraries**)

RN 172729-50-9 HCAPLUS

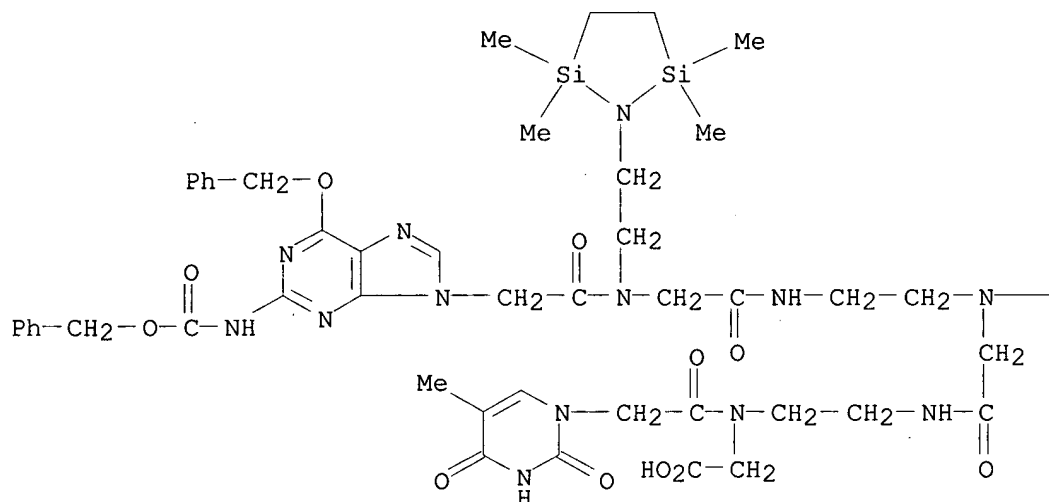
CN 3,6,9,12,15-Pentaazaheptadecanoic acid,

3,9-bis[(3,4-dihydro-5-methyl-2,4-

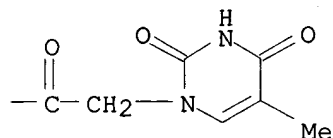
dioxo-1(2H)-pyrimidinyl)acetyl]-7,13,16-trioxo-17-[6-(phenylmethoxy)-2-

[[ (phenylmethoxy)carbonyl]amino]-9H-purin-9-yl]-15-[2-(2,2,5,5-tetramethyl-1-aza-2,5-disilacyclopent-1-yl)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

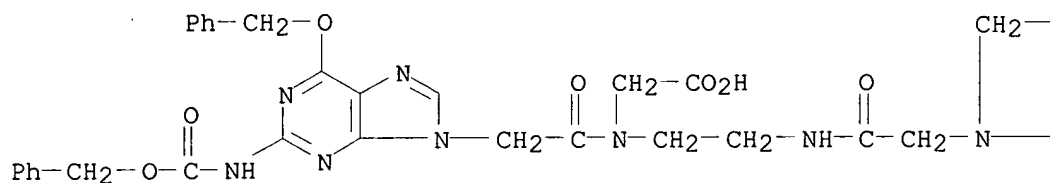


PAGE 1-B

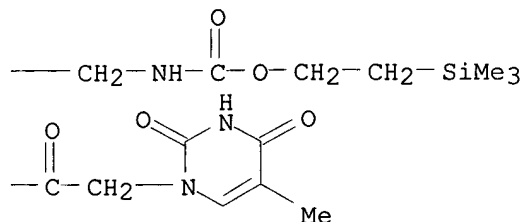


RN 172729-69-0 HCAPLUS  
 CN 2,5,8,11-Tetraazatridecanedioic acid, 5-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-7-oxo-11-[[6-(phenylmethoxy)-2-[[[(phenylmethoxy)carbonyl]amino]-9H-purin-9-yl]acetyl]-, 1-[2-(trimethylsilyl)ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

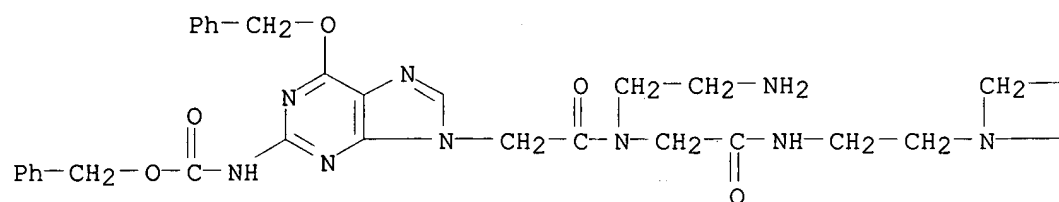


PAGE 1-B

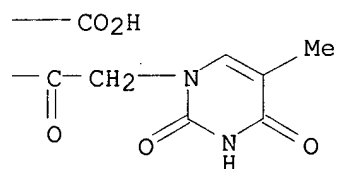


RN 172729-73-6 HCAPLUS  
 CN Glycine, N-[2-[[[(2-aminoethyl)[[6-(phenylmethoxy)-2-[[[(phenylmethoxy)carbonyl]amino]-9H-purin-9-yl]acetyl]amino]acetyl]amino]ethyl]-N-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

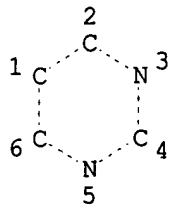


PAGE 1-B



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L25 STR



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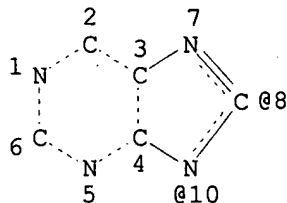
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CONNECT IS E3 RC AT 4  
CONNECT IS E3 RC AT 6  
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I  
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L26 STR



A @11

VPA 11-8/10 U

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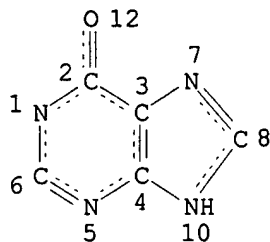
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CONNECT IS E3 RC AT 2  
CONNECT IS E3 RC AT 6  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L27 STR



## NODE ATTRIBUTES:

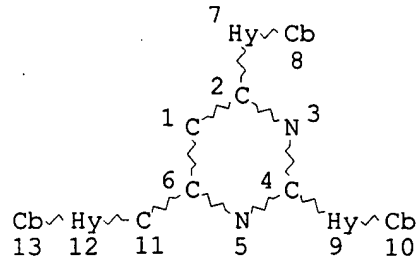
CONNECT IS E3 RC AT 6  
 CONNECT IS E3 RC AT 8  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 10

## STEREO ATTRIBUTES: NONE

L32 SCR 1950  
 L35 62942 SEA FILE=REGISTRY SSS FUL (L25 OR L26 OR L27) AND L32  
 L36 87480 SEA FILE=REGISTRY SSS FUL (L25 OR L26 OR L27) NOT L32  
 L37 150422 SEA FILE=REGISTRY ABB=ON PLU=ON L35 OR L36  
 L45 STR



## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 13

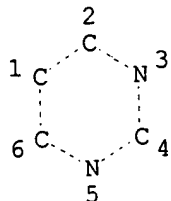
## STEREO ATTRIBUTES: NONE

L46 0 SEA FILE=REGISTRY SUB=L37 SSS FUL L45

=> d que 147

L25

STR



NODE ATTRIBUTES:

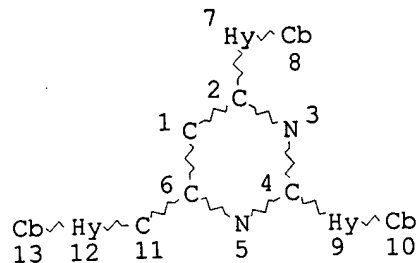
CONNECT IS E3 RC AT 2  
CONNECT IS E3 RC AT 4  
CONNECT IS E3 RC AT 6  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I  
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L45 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L47 0 SEA FILE=BEILSTEIN SSS FUL L25 AND L45

=> d his

(FILE 'HOME' ENTERED AT 06:29:17 ON 28 FEB 2000)

FILE 'REGISTRY' ENTERED AT 06:29:22 ON 28 FEB 2000

L1

STR

L2

50 S L1

Searched by John Dantzman

308-4488



L3 STR  
L4 50 S L3  
L5 STR L3  
L6 50 S L5  
L7 155687 S (46.195.39/RID OR 333.446.88/RID OR 333.446.96/RID) AND  
NRS>2  
L8 37 S (333.446.96/RID) AND NRS>2  
L9 85727 S (46.195.39/RID OR 333.446.88/RID) AND NRS>3  
L10 85764 S L8 OR L9  
L11 20000 S L10 OR L10 RAN=(182937-89-9,)  
L12 20001 S L10 OR L10 RAN=(139290-83-8,182937-89-9)  
L13 20001 S L10 OR L10 RAN=(102386-27-6,139290-83-8)  
L14 20001 S L10 OR L10 RAN=(52546-67-5,102386-27-6)  
L15 5765 S L10 OR L10 RAN=(,52546-67-5)

FILE 'HCAPLUS' ENTERED AT 07:17:13 ON 28 FEB 2000  
L16 51529 S COMBINATORIAL? OR LIBRAR?  
L17 3128 S L11  
L18 5249 S L12  
L19 6902 S L13  
L20 10835 S L14  
L21 38947 S L15  
L22 291 S L16 AND (L17-L21)  
L23 65 S L16(L) (L17-L21)

FILE 'REGISTRY' ENTERED AT 07:25:19 ON 28 FEB 2000

FILE 'HCAPLUS' ENTERED AT 07:25:25 ON 28 FEB 2000  
SET SMARTSELECT ON  
SET SMARTSELECT OFF

FILE 'REGISTRY' ENTERED AT 07:25:39 ON 28 FEB 2000

FILE 'HCAPLUS' ENTERED AT 07:25:52 ON 28 FEB 2000  
SET SMARTSELECT ON  
L24 SEL L16 1-30000 RN : 51161 TERMS  
SET SMARTSELECT OFF

FILE 'REGISTRY' ENTERED AT 07:31:38 ON 28 FEB 2000  
L25 STR  
L26 STR  
L27 STR L26  
L28 50 S L25-L27  
L29 343876 S (46.195.39/RID OR 333.446/RID)  
L30 50 S L25-L27 SSS SAM SUB=L29  
L31 50 S L25-L27  
L32 SCR 1950  
L33 50 S L25-L27 AND L32  
L34 50 S L25-L27 NOT L32  
L35 62942 S L25-L27 AND L32 FUL  
L36 87480 S L25-L27 NOT L32 FUL  
L37 150422 S L35 OR L36  
L38 45363 S L37 AND L10  
L39 20000 S L38 OR L38 RAN=(142950-49-0,)  
L40 20001 S L38 OR L38 RAN=(70285-53-9,142950-49-0)  
L41 5364 S L38 OR L38 RAN=(,70285-53-9)

FILE 'HCAPLUS' ENTERED AT 07:41:50 ON 28 FEB 2000  
L42 18137 S L39-L41  
L43 188 S L42 AND L16  
L44 48 S L42(L)L16

FILE 'REGISTRY' ENTERED AT 07:44:00 ON 28 FEB 2000  
L45 STR  
L46 0 S L45 SSS FUL SUB=L37

FILE 'BEILSTEIN' ENTERED AT 07:46:25 ON 28 FEB 2000  
L47 0 S L25 AND L45 FUL